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ABSTRACT

The Houston Regional High-Technology Delivery System Model for Adult Literacy meets the need for a technology-based system to deliver instruction in basic literacy skills. The system provides multilevel instruction in reading, writing, and computation skills to out-of-school youth and under-educated adults. A variety of technologies are used to serve the students through technology-based literacy centers, in their homes, and through community centers, such as schools and libraries. Prior to developing the system, a high-school dropout study was completed and a systematic approach was taken to identify the following: resources, student needs, skills for entering the job market, suitable electronic transmission systems, and available instructional materials compatible with the systems. (This report describes the conduct of the project and includes many schedules used in developing the project: organizational contacts, recruitment guidelines, basic skills needed for entering the job market, room designs for adult literacy center and satellite center, a resource list of literacy videotapes, adult literacy projects, project evaluation, and public television involvement plans.) (KC)

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A Regional High-Technology Delivery System Model for Adult Literacy

A report produced by the

Houston Independent School District

for the

Texas Education Agency

July 1986

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Regional High-Technology Delivery System Model for Adult Literacy

Recommendations

The following steps are recommended to implement The Regional High-Technology Delivery System Model for Adult Literacy:

1. **Use technology to make existing adult literacy efforts more productive.**
   - Use computers to teach reading at established literacy centers.
   - Apply proven technology-based instructional designs in new projects.
   - Use new technologies to take advantage of teaching techniques previously impossible to implement.
   - Use telecommunications to reach additional students.

2. **Establish technology literacy centers that focus on helping the entire family become literate.**
   - Augment existing literacy centers with appropriate technology.
   - Establish new technology-based literacy centers.
   - Place centers in non-academic areas accessible to large numbers of people.

3. **Use community literacy helpers to reach additional adults.**
   - Use television and radio to motivate literacy *helpers* to become literacy *tutors* .
   - Provide training and support materials for literacy helpers.
   - Encourage literacy helpers to work in adult literacy centers.

4. **Establish a literacy television channel.**
   - Use literacy helpers as leaders for group viewing of televised literacy sessions.
   - Develop additional print materials for literacy helpers.
   - Promote literacy-related entertainment shows in addition to direct instruction.
   - Use a UHF channel to reach the widest audience possible.
   - Wire homes or community centers for cable to receive the literacy channel if UHF is unavailable.

5. **Use broadcast television to reduce school dropouts and combat illiteracy.**
   - Create role models for students.
   - Motivate parents to further their education.
   - Improve literacy skills of parents.

6. **Create an electronic network to improve communication among literacy groups.**
   - Enable existing literacy organizations to share techniques, ideas, and resources.
   - Distribute training materials electronically.
   - Track students as they enter and leave various programs.

7. **Encourage businesses to incorporate literacy skills into their job training programs.**
   - Point out cost-effectiveness of combined literacy/job training approach.
   - Demonstrate the importance of increasing time on task.
   - Emphasize mastery learning.

8. **Reduce school dropout rate by using computers in addition to traditional approaches.**
   - Provide continuity in students' education even when their families move frequently from one district to another.
   - Provide positive reinforcement for student achievement.
   - Mitigate conflicts with authority figures.
   - Maintain curriculum standards for underachieving students.
   - Keep expectations high for low-achieving students.
   - Address underlying stresses and problems leading up to leaving school.
   - Mandate specific dropout intervention approaches tailored to individual students.

9. **Use the core curriculum competencies suggested by the Panel on Secondary Education for the Changing Workplace.**
   - Create a curriculum which gives students the minimum competencies needed for the workplace and lifelong learning.
   - Increase the involvement of business with school.

10. **Develop microcomputer-based "talking" software to teach reading and writing to adults at levels 0-3.**

11. **Develop microcomputer-based "talking" software to teach English to limited-English-speaking adults.**

12. **Develop videodisc-based learning materials to teach English as a second language to adults.**

13. **Develop videodisc-based learning materials to support adult literacy instruction in reading and writing.**

14. **Implement a public relations program.**
    - Build public awareness of the adult illiteracy problem and its economic impact on society.
    - Gain supportive media coverage.
    - Recruit additional adult students.
    - Recruit additional tutors and literacy helpers.
    - Obtain support from business and industry for funding and use of training facilities.
    - Coordinate regional and national adult literacy efforts.
    - Solicit funding from foundations, government agencies, and corporations.

15. **Implement product and process evaluations of the high-technology delivery system.**
    - Develop standardized literacy software to measure each participant's level and progress.
    - Develop parallel paper-and-pencil measures of progress to be administered by literacy helpers.
    - Establish a system for monitoring recruitment and numbers of participants and helpers and the use of the Literacy Centers.
    - Use surveys and observational techniques to document each aspect of the delivery system.
    - Establish and maintain a global index of illiteracy for the city.

16. **Direct available funds to the development of programs, not further documentation of the adult literacy problem.**

17. **Develop an action plan for soliciting funds for those critical programs from national, state and local sources.**

Regional High-Technology Delivery System Model for Adult Literacy

Overview

The Regional High-Technology Delivery System Model for Adult Literacy meets the need for a technology-based system to deliver instruction in basic literacy skills. The system provides multi-level instruction in reading, writing, and computation skills to out-of-school youth and undereducated adults. A variety of technologies are utilized to serve the students through technology-based literacy centers, in their homes, and through community centers, such as schools and libraries.

This report is one of four documents: The Final Report with attached Schedules A-I and three Appendices to which this report will frequently refer.

Project Goals

In May 1985, the Texas Education Agency awarded the Houston Independent School District a planning grant to develop a Regional High-Technology Delivery System Model. The goals of the grant were to:

1. Complete a high school dropout study.

2. Develop a systematic approach and identify
    a. public and private resources,
    b. non-literate, out of school youth and adults,
    c. basic skills needed for entering the job market,
    d. suitable electronic transmission systems, and
    e. available instructional materials compatible with electronic transmission systems.

3. Develop
    a. a delivery system and
    b. implementation plan for accessing, storing, and transmitting instruction to public and private adult learning sites via electronic transmission systems.

An assessment of the achievement of these goals is in Schedule H.

Organization of Committees

The strategy for achieving the goals designated on the regional delivery system model was to identify leading educators, business people, adult education experts and community representatives to study the resources available in the Houston area and to determine methods for using technology to develop the literacy of over 400,000 adults in the greater Houston area. These 20 individuals were divided into five committees so they could study the issues and work cooperatively to develop recommendations. (See Acknowledgements.)

1. Technical Specifications and Logistical Information--Analysis of transmission systems, including descriptions of capabilities and limitations of those systems
2. Information and Public Services--Development of a plan to promote public awareness and involvement in the literacy movement
3. Data Collection, Analysis, and Storage--Completion of a high school dropout study identifying target population, employment skills, and location of highest need
4. Ways and Means--Identification of public and private funding sources at a local, state, and national level
5. Program Analysis and Intervention Strategies--A list of instructional resources compatible with electronic transmission systems

These committees met several times from January 1986 to June 1986. Houston Independent School District Department of Technology staff members analyzed and amalgamated the information collected by the steering committees to produce the final report.

On July 24, 1986, representatives of these committees and of the Research Department of the Houston Independent School District met to review the final report. All modifications suggested at that time have been included in this report. An agenda of that meeting signed by those in attendance is given in Schedule G.

The Approach
(DEVELOP A SYSTEMATIC APPROACH--Project Goal #2)

STEP I-- CONCEPTUALIZATION
August 1985

The main goal of the project was to develop a comprehensive delivery system to reach persons in need of literacy training throughout the Houston region. Several sources were used to develop a realistic understanding of the problem: a Dropout Study by the Center for Educational Statistics based on the 1980 United States Census Data, reports from the Texas Education Agency and local literacy organizations, and the Adult Performance Level Study completed by The University of Texas in 1975.

STEP II--REVIEW OF EXISTING PROGRAMS
August 1985

The work of local organizations was reviewed to prevent duplication of existing efforts. Conferences were held with the following local groups: Adult Education Department of Houston Community College; Assault on Illiteracy; Literacy Volunteers of America; the Reading, Education and Development Council (R.E.A.D.); Adult Education Department of Region IV Educational Service Center; Literacy Advance of Houston; Community in Schools; School After School; and the Department of Technology of the Houston Independent School District. These organizations were viable resources for sharing program information and participation in the program at various levels of development.

STEP III--COMMUNITY INVOLVEMENT
August 1985-Ongoing

An invitation was issued to companies, key community persons, and leaders of philanthropic groups who are essential to the success of a communitywide program. Representatives of this group became the Advisory Committee for the program. They can recruit staff, advise on program development, and evaluate the program. The committee was divided into subgroups to work on specific tasks such as communication, technology, and finances. The committee met several times to plan strategies for the operation of the program.

STEP IV--GOAL-SETTING

September 1985

Two main goals were established for the High-Technology Delivery System Model. The first goal was to eradicate adult illiteracy in the Houston region. The second goal was to utilize an appropriate high-technology system to deliver the instruction. It is possible that it may take ten years to reach the half-million persons targeted for this project. The task is so enormous that specific objectives must be established on an annual basis if the goals are to be achieved. It is important that at the beginning the objectives be clearly established and maintained, since the direction at the start of the program will have a definite impact on the structure of the program. Careful assessment and revision of the program are also essential.

STEP V--PROGRAM DEVELOPMENT

March 1986

Contact was established with local organizations in the Houston Independent School District that have developed programs directed toward dropouts and returnees. A careful study was made of the modules developed at the Contemporary Learning Center, a Houston ISD magnet school which specializes in individualized learning. Two videotape series, the Kentucky GED series and the Mississippi Authority for Educational Television Competency-Based Life Skills, were reviewed for possible use. ESL software using speech synthesis and high-resolution graphics developed at the Department of Technology of the Houston Independent School District was chosen to serve as a model for development of reading and writing computer-assisted instruction for adult illiterates. New ESL video materials for teaching limited-English-speaking adults are also recommended for development by the Department of Technology since so many illiterates in this region are Spanish speaking.

The Scope of the Problem

Adult illiteracy is a national problem. Estimates of the number of adult illiterates range from 23 million to 60 million, depending on how illiteracy is defined. For the purposes of this study, illiteracy is the inability to read, write, and compute well enough to function completely and independently in society.

A 1986 U.S. Census Bureau study, the English Language Proficiency Survey, estimated that 13 percent of American adults cannot understand simple instructions written in English. It also found that illiteracy is five times higher in cities than in rural areas. The Adult Performance Level Study (Northcutt, 1975) from The University of Texas at Austin revealed that about 23 million Americans are at such a low literacy level that they have great difficulty functioning as self-sufficient adults. The study also revealed that illiteracy rates for minorities are significantly higher. In addition, it is estimated that 75 percent of unemployed people are functionally illiterate.

Illiteracy and the Cost of Criminal Recidivism in Texas

As many as 80 percent of the inmates of the Texas Department of Corrections (TDC) may be functionally illiterate. Inmates entering the system in 1985 were given the Adult Basic Education Test to determine their functional grade level achievement. Based on the results of this test, TDC records show that 89.3 percent of new inmates in 1985 had a grade level achievement of 7.9 or below. In fact 38.7 percent had a grade level achievement below 6 (Eisenberg, 1986).

Parolees without a high school diploma or the equivalent have a first-year recidivism rate of 60 percent. The recidivism rate of those parolees with a diploma or the equivalent is startlingly lower, 12 percent. Sixty to 65 percent, or about 13,000, of the 1985 releasees in Texas had no high school diploma or its equivalent (Eisenberg, 1986).

This means that of the more than 20,000 releasees from TDC in 1985, 7,800 will probably return to prison within one year. In 1985 the cost of maintaining an inmate in TDC was $35 per day, or $12,775 per year. The cost to the state for the maintenance of these releasees who will very probably return to TDC within one year is $100 million per year (Eisenberg, 1986). These statistics do not include individuals who are initially placed on probation but who eventually enter the prison system when their probation conditions are violated.

Economic Repercussions

The employment picture in Texas and in Houston, in particular, is rather bleak at the moment. Unemployment figures have skyrocketed in the past several years with no relief in sight. In fact the Houston area unemployment rate has already reached 12.6 percent (July, 1986). This means that the welfare rolls, already bursting at the seams, will be required to accommodate even more of the unemployed. A prime reason for recidivism is unemployment (Eisenberg, 1986). As is shown in this report, a prime reason for unemployment is illiteracy.

The unemployed will be supported,whether through the welfare rolls or the prison system, and a great deal of this support comes from state tax dollars. A substantial portion of the state's tax revenue comes from businesses whose incomes are based in part on consumer spending. So it is no wonder that as part of this vicious circle, Texas is currently facing a three-billion-dollar budget shortfall.

The Senate Select Committee on Equal Educational Opportunity estimated in 1972 that a figure of $237 billion in unrealized lifetime earnings was forfeited by men 25 to 34 years old who have less than high-school-level skills. That figure requires updating and will escalate dramatically if data on women ages 25 to 34 are included. Direct costs to businesses and taxpayers are approximately $20 billion. Six billion dollars yearly (estimate from mid-1970s) go to child welfare costs and unemployment compensation caused directly by the numbers of illiterate adults unable to perform at standards necessary for available employment. Estimates of adult illiterates in Houston range between 350,000 and 500,000, although no study that has yielded precise figures has been done.

Rationale for the Use of Technology

There have been many programs implemented in the recent past to teach adult functional illiterates to read and write. The success of these programs, in terms of the proportion of the target population reached, has been minimal. Even more ominous is the fact that upwards of 98 percent of adult functional illiterates are not reached by any efforts to end illiteracy (Hunter and Harman, 1979).

Current approaches based on volunteer tutors simply cannot attract and serve the large numbers of people in need of instruction. Accordingly, the use of a technology-based system of instruction, with multiple levels and accessible in many community centers, as well as the home, is strongly indicated.

Teaching Adults To Read

Reading has advanced from a state where it was thought to be a relatively passive operation of gleaning meaning from print to one where it is recognized that the reader must impose meaning upon the print. Hence, it was first thought that the reader simply decoded words, determining the meaning of words and, thus, sentences. It is now realized that in addition to decoding skills, reading is dependent upon such items as knowledge of the topic, linguistic conventions, the writer's purpose, and the genre of the article as well as other constraints. Thus, as Nickerson (1985) notes, "Comprehension is not an either-or affair, but a matter of degree."

Bormuth's (1975) Taxonomy of Literacy Skills is a key to an understanding of the skills a person must have in order to read. The taxonomy specifies seven major skill areas as follows:

- Decoding skills
- Literal comprehension skills
- Inference skills
- Critical reading skills
- Aesthetic appreciation skills
- Reading flexibility skills
- Study skills

This taxonomy must be viewed in the light of adult basic education needs, especially in those programs which view literacy training as a component of job training or life-skills preparation.

However, the components of reading skills are secondary to the adult learner's motivation. The teaching of reading, without linking the skill to an achievable goal, frequently becomes a futile effort if the learner drops out of the courses. Accordingly, it is almost useless to teach reading without linking it to some tangible goal such as meeting the qualifications for a new job, obtaining a GED, or simply reading labels on food products.

Right to Read

In the 1970's, a major effort was launched by the U.S. Department of Education. This ten-year effort began during Lyndon Johnson's Administration with the ambitious goal of eradicating illiteracy by 1980. The primary thrust was volunteerism, and thousands of tutors were trained through a national network that was directed by state and regional Right to Read directors and coordinators. Grants were available to encourage the development and documentation of worthwhile literacy programs that could be duplicated throughout the United States.

The effort was highly publicized, but little data was collected to document the gains achieved. Since this major effort, there has been little activity at the national level through the Department of Education.

The Army's FLIT Project

One interesting development linking the teaching of reading to increase of job skills was the 1971 Functional Literacy (FLIT) project sponsored by the U.S. Army. Starting with recruits reading below the sixth-grade level, in a six-week training period the Army produced "a student capable of using job-related reading materials with the effectiveness of a person having a general reading ability of seventh grade or higher. This was accomplished by ensuring that all job-related training was conducted using the concepts, content and reading materials of the student's own job area" (Sticht and Mikulecky, p. 19).

The FLIT instruction was delivered via pen and paper in 1971. It relied heavily on drill and practice in its first strand and used simplified reading materials in its second. The third strand allowed students to read freely in job-related materials of their choosing. Because instructional computers are very effective when used for drill and practice, it is safe to say that the delivery system would have been facilitated by the use of computers to carry the bulk of the instruction.

Since the inception of the FLIT project a number of techniques for the use of computers have been experimented with in teaching reading. These include:

- Providing context-specific definitions of words, minimizing the use of a dictionary
- Using a "talking" dictionary that provides audio definitions of words on demand
- Providing less difficult passages of reading material conveying the same information
- Providing additional background information regarding a passage

In any of these designs comprehension is improved when the instructor, not the reader, controls which of the options are selected (Balajthy and Reinking, September 1985).

Private Enterprise Involvement/Principles for Job-Related Training

Much literacy training can be undertaken by business and industry, although they are understandably reluctant to undertake what should have been accomplished by the schools. However, Sticht and Mikulecky (1984) offer four principles for successful program development integrating what has been learned from such programs as the Army's FLIT project and a viewpoint of the learner as an "information processing system that develops new capabilities over time using prior knowledge and skills as the means for acquiring new knowledge and skills" (p.31).

The following principles are recommended by Sticht and Mikulecky for job-related literacy training:

- *Maintain an orientation to the mission of the business, industry, or government organization for which basic skills programs are to be developed.* If basic and technical skills training can be integrated and both taught at a fraction of the cost of separate types of programs, then a company is more likely to support basic skills training. The opportunity for employment will act as motivation for the learner.

- *Provide training in basic skills within a functional context.* This principle states that skills and knowledge are best learned when presented in a context meaningful to the learner.

- *Arrange program conditions to maximize active learning time.* The principle of increasing time on task means that program developers and operators should seek to arrange the conditions of learning so that the greatest amount of time possible is spent with each trainee actively engaged in a learning task.

> - *Use a competency-based mastery learning approach where possible.* In competency-based learning, a person's learning goals are stated in terms of the competencies needed to perform the tasks of the job literacy, oracy, or numeracy domains, rather than in terms of some external referent such as grade school level or percentile score. Mastery learning indicates a setting of standards of competency where 100 percent of the trainees learn to perform 100 percent of the basic skills tasks that indicate competency in the job literacy domain (p. 32).

At the same time, businesses should be encouraged, as they are in the Houston Independent School District School Business Partnership Program, to give their workers time to work in schools as volunteer tutors. This would be especially effective in reinforcing literacy skills.

School Dropouts (DROPOUT STUDY--Project Goal # 1)

The problem of school dropouts contributes immensely to the adult illiteracy situation. For instance, the National Education Association (NEA) quotes figures indicating that one-third of all Texas students will drop out before graduating from high school, leaving only ten other states with a higher dropout rate (*Advocate*, May/June 1986). The NEA offers these reasons for student dropout:

- Migrant lifestyle
- Low parent education
- Lack of home support for education
- Low socioeconomic status (SES)
- Economic need
- Recurrent academic failure
- Learning difficulty
- Conflicts with authority
- Marriage
- Pregnancy
- Incarceration
- Drugs/alcohol

The Houston Independent School District (HISD) has defined a dropout (Dropout Study, Appendix I) as a student who leaves school, for any reason except death, before graduation or completion of a program of studies and does not transfer to another school. Dropouts include people who enter the military after leaving school before graduation or who enter GED programs, trade schools, or business colleges or who go to prison. Students who leave school for early admission to a college or university in pursuit of a degree are not considered to be dropouts.

A typical HISD dropout is a member of an ethnic minority group who exhibits severe reading deficiencies and comes from a low-SES home environment. Half of HISD's dropouts leave school during the ninth or tenth grade if not sooner.

The dropout study of HISD students submitted in support of this report indicated that:

- Dropping out is a complex process, which begins long before students actually leave school. Categories of reasons for leaving school include school characteristics which alienate students (authority of teachers); personal, achievement, and family-related considerations which make conformity with school requirements difficult for students; and student perceptions of economic opportunities outside of school.

- Dropping out is not simply a problem attributable to low achievement, minority status, or economic disadvantage; many gifted students drop out.

- Most dropout intervention strategies involve the establishment of a school-like setting outside of regular school channels; most are aimed at remedial populations, and almost all are for secondary school students. As such, they may miss other at-risk populations for whom such programs are inappropriate.

Structural Deterrents to Leaving School

The HISD Dropout Study also found that there were aspects of HISD programming which, though not designed originally as deterrents to leaving school, do ameliorate factors which help to push students out of school. In general, they are programs which support the instructional program, make it more consistent, and give students and parents alike ready access to school facilities.

- In 1981, HISD adopted a single basal reading program in grades K-8. Thus, no matter how many times students moved within the district, they always could pick up familiar instructional materials; but, by the same token, students who experienced academic difficulties had to use the same materials that they had already failed to learn from, because no alternatives were available.

- Another factor involves transfer of information about students as they move within the district. Originally, transferring students preceded most of their records to the receiving school. As HISD moves toward an easily accessible computerized student data base, schools will be able to have instant access to a student's prior activities and will be able to prescribe more consistent and appropriate placement and instruction. In July 1986, the State School Board adopted a statewide system for electronic data base management. Procedures for standardizing data will help in tracking transferring students.

Recommendations for Intervention Strategies

The Dropout Study made a number of recommendations for intervention strategies:

- Identify programs for all sectors of the student population, since dropouts are not limited to low-achieving, low-income, and minority students.
- Make a distinction between dropouts and delinquents.
- Take care not to dilute the curriculum for underachieving students or to lower the expectations for low-achieving students.

The Dropout Study summarized the intervention strategies by noting that the discussion of student characteristics and problems points to three considerations critical to implementation of dropout prevention/intervention strategies:

1. First of all, dropping out is a symptom of more complex problems. These may be related to personal conflicts students have, but they also may point to societal and school factors which need to be changed.
2. Specific problems mandate specific types of intervention tailored to individual students.
3. Dropout intervention and prevention programs may not be effective unless they address the underlying stresses and problems which lead up to the actual leaving of school.

It is interesting to note that several of the areas cited by both the NEA and HISD studies have the potential of being dealt with effectively through the use of computers and telecommunications. Computer-based education would allow a migrant student to pick up exactly at the point left when a move to a new location occurs. Computers can be programmed to teach to strengths and avoid producing or emphasizing student failures. Also, computers can be programmed to avoid provoking student conflicts with academic authority. Television can provide the positive academic role models that some parents are unable to supply. Most importantly, technology-based learning systems can be used effectively to raise the academic skills and education levels of parents.

However, while providing some unique opportunities for the use of technology, the HISD Dropout Study indicated that the use of computers in education often is characterized by socially isolated one-on-one modes of delivery. The study noted that successful dropout prevention programs place heavy emphasis on arranging instructional and social experiences which reinforce work skills; these include cooperative and group learning tasks which rely on peer pressure and positive interaction between staff and students as motivators. This must be considered in the development of computer dependent curricula. Exclusive reliance on non-teacher-directed or individualized learning and computer-assisted instruction as a delivery mode may not address the social skills requisite to school and success.

This report recommends that instructional delivery systems in dropout prevention/intervention programs be constructed so as to be appropriate to the skill level of students as well as to allow for inculcation of social attitudes and skills critical to school and job success. They also need to attend to acquisition of cognitive skills.

Competencies and Jobs

(BASIC SKILLS NEEDED FOR THE JOB MARKET--Project Goal #2c)

Whatever the disruptions in students' academic careers, however, the outcomes of education must meet certain minimum literacy requirements for employment. In 1984, the Panel on Secondary School Education for the Changing Workplace, a committee of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine, issued a report entitled "High Schools and the Changing Workplace, the Employers' View." The report described the skills needed by high school graduates to meet the needs of potential employers. Within the area of literacy the following core competencies were recommended and endorsed by the present report . (A complete list of the competencies can be found in Schedule C.)

REASONING AND PROBLEM SOLVING

- Identify problems.
- Consider and evaluate possible alternative solutions, weighing their risks and benefits.
- Formulate and reach decisions logically.
- Separate fact from opinion.
- Adjust to unanticipated situations by applying established rules and facts.
- Work out new ways of handling recurring problems.
- Determine what is needed to accomplish work assignments.

READING

- Understand the purpose of written material.
- Note details and facts.
- Identify and summarize principal and subsidiary ideas.
- Be aware of inconsistency in written material.
- Verify information, and evaluate the worth and objectivity of sources.
- Interpret quantitative information (for example, in tables, charts, and graphs).

WRITING

- Gather information suitable for the purpose.
- Organize information in a logical, coherent manner.
- Use standard English syntax.
- Apply the rules of correct spelling, punctuation, and capitalization.
- Attribute references correctly.
- Use reference books such as a dictionary, a thesaurus, and an encyclopedia.
- Write legibly.

Two additional areas cited by the panel apart from the literacy skills were the core competencies in oral communication and computation. These competencies complement the literacy competencies.

ORAL COMMUNICATION

- Communicate in standard English.
- Understand the intent and details of oral communications.
- Understand and give instructions.
- Identify and summarize correctly principal and subsidiary ideas in discussions.
- Obtain, clarify, and verify information through questioning.
- Participate effectively in discussions.

COMPUTATION

- Add, subtract, multiply, and divide whole numbers, decimals, and fractions accurately.
- Calculate distance, weight, area, volume, and time.
- Convert from one measurement system to another (for example from English to metric).
- Determine the costs, time, or resources necessary for a task.
- Calculate simple interest.
- Compute costs and make change.
- Understand simple probability and statistics.
- Calculate, using information obtained from charts, graphs, and tables.
- Use ratios, proportions, percentages, and algebraic equations with a single unknown.
- Estimate results, and judge their accuracy.

Finding Those in Need of Help
(IDENTIFY NON-LITERATE, OUT-OF-SCHOOL YOUTH AND ADULTS--Project Goal #2b)

Without proper identification of the number and types of potential participants, no literacy program can be successful. The following steps outline the approach to this problem developed for The Regional High-Technology System. These guidelines are discussed in full in Schedule B.

1. Check public school records and research on dropouts.

2. Work with welfare agencies that provide aid for parents of dependent children.

3. Get information from the Texas Employment Commission on applicants with limited educational training.

4. Review U.S. Census data on geographic location, educational level, and sex of citizens with below-level training.

5. Select a screening device (ABE) that identifies the educational levels of all recruits.

6. Identify and work with businesses and industries that have employees and employment opportunities that require low-level skills and educational background.

7. Consult principals and counselors of alternative schools that provide education for at-risk students and their families.

8. Utilize the research of local school districts which frequently will identify students with poor achievement, truancy, and records of dropping out of school. A follow-up in such cases usually will reveal an environment of deprivation and illiteracy.

9. Be mindful of the fact that illiterate adult learners are frequently highly sensitive to their handicap.

10. Be aware of the variety of socioeconomic levels that may be represented by those interested in the program.

Organizational Contacts

(IDENTIFY PUBLIC AND PRIVATE RESOURCES--Project Goal #2a)

Many organizations are excellent resources for identifying eligible students and for publicizing the adult literacy program. These are detailed in Schedule A. This list is representative of the possibilities:

- Youth organizations
- Church organizations
- Private-industry councils
- State Parole Board
- Adult and juvenile probation departments
- Department of Human Resources
- Immigration and Naturalization Services
- County Department of Education
- Ethnic organizations
- Urban League
- Organizations for community development
- Local newspapers
- Cities in Schools

The Social Context of Illiterates

A strategy to take advantage of community people who are already informally working with adult illiterates is suggested by Reder and Green (1985) in a study prepared for the National Adult Literacy Project in 1985, a project sponsored by the National Institute of Education. Many of the ideas advocated by the authors would help to extend the reach of any project to eliminate adult illiteracy and are compatible with a high-technology approach.

Reder and Green advocate that literacy training be given to adults within their own communities, peer networks, and value systems, instead of in such traditional locations as school buildings, where failure has already been experienced. However, even though Reder and Green recommend that centers be located away from schools, it would be most economical for The Regional High-Technology Delivery System Model to locate some of the Literacy Centers in schools where computer laboratories already exist. These school buildings are readily available at many of the times when literacy training would logically take place, in the evenings and on weekends. Reder and Green note that training "that is embedded in the fabric of adults' on-going lives can greatly expand both the number of students and tutors involved in training across the country" (p. 23).

They point to a study by Fingeret (1983) indicating that people who are functionally illiterate frequently are contributing members of their communities and are part of extensive social networks, in which they receive the help they need

> to handle written materials in exchange for other types of expertise they possess (such as mechanical experience, counseling, child care, etc.). Considering them to be powerless, unskilled, noncontributing members of society does them a crippling disservice and may complicate efforts designed to provide literacy training for them. (Reder and Green, p.8)

Thus, rather than being dysfunctional in their environments, they cope quite well

> and are reluctant to trade the comfort of their environments, systems of knowledge and values (rooted more in day-to-day experience and what Fingeret terms "common sense" than in written materials) for the environment, knowledge base and values of "educated fools," an exchange that many perceive adult education programs to demand. (Reder and Green, p. 8).

The functionally illiterate do have some reading skills and they "can and do read written materials of interest to them, although often with some difficulty" (Reder and Green, p. 9). They "can use their . . . literacy skills to gain new knowledge by reading, writing and interacting with knowledgeable teachers and peers" (Sticht, 1985, p. 10). In effect, "these individuals interact regularly with friends and neighbors who have better literacy skills, jointly completing a task such as filling out a form or writing a letter" (Reder and Green, p. 9). These knowledgeable peers are identified by the authors as literacy helpers.

The same group of functionally illiterate persons cite the lack of the following as reasons for not enrolling in literacy classes:

- Transportation
- Money
- Child care
- Time
- Information about programs
- Congruence between program goals and student interests. (Frequently, they have no interest in obtaining a GED, rather only a need to learn how to read and cope with required forms.)

Accordingly, even though not attending formal classes to improve reading and writing skills, the functionally illiterate have developed a collaborative method of dealing with achieving their reading needs within natural helping networks. They achieve a kind of spontaneous literacy that is learned in somewhat the same way language is learned. Reder and Green note that "through interaction and collaboration with their 'literacy helpers,' many adults incidentally acquire knowledge and skills related to the performance of specific literacy tasks" (p. 15).

Common informal literacy tutorial sessions occur when one person asks another to fill out a form or perform a similar task. This is a typical example of teaching to accomplish a specific literacy task. The "helper" may simply show the person in need how to fill out the form or actually teach him to read. Reder and Green note that within poor communities, literacy helper experts exist in the areas of learning how to fill out forms (money orders, welfare reports, income taxes), how to take the driver's license test, how to complete job applications, and how to read bills. Other instances demonstrate use of religious materials for instruction.

According to Mezirow, Darkenwald, and Knox (1975), many Adult Basic Education (ABE) programs enroll students that have values similar to those of middle-class teachers and administrators, while the greatest number of functional illiterates seek help from neighbors. The researchers note that students with lifestyles and values typical of the lower classes do not join ABE programs.

The findings linking literacy to specific tasks in need of completion is congruent with the success of the Army's FLIT project, where literacy skills increased in job-related reading tasks. There is much evidence in support of peer tutoring (Levin and Meister, 1984).

Commercial Television and the Adult Illiterate

The research (Marchilonis and Niebuhr, 1985) indicates that for adult functional illiterates, commercial television and radio programs are major sources of information and entertainment, with television viewing rates as high as 46 hours per week. However, adult functional illiterates do not watch public television channels in great numbers, nor do they usually listen to National Public Radio stations.

The impact of television can be assessed with Eyster's (p. 16) Classification Scheme of Levels of Literacy.

Table 1
Levels of Literacy

Group 1: Highly Functionally Literate
Skill Level: High
Economic Security: High
Attitude Toward Education: High
Participation Characteristics: Easy to attract, easy to reach

Group 2: Moderately Functionally Literate
Skill level: Moderate
Economic Security: Moderate, variable
Attitude Toward Education: High
Participation Characteristics: Easy to attract, frequent scheduling difficulties

Group 3: Functionally Illiterate
Skill Level: Low
Economic Security: Low
Attitude Toward Education: Low self-concept from previous failure colors their attitudes
Participation Characteristics: Difficult to attract, difficult to hold

Group 4: Illiterate
Skill Level: Lowest
Economic Security: Below poverty level
Attitude Toward Education: Very fatalistic
Participation Characteristics: Very difficult to attract

Most members of Groups 3 and 4 do not watch public television at all, so the initial teaching-by-television task must be carried by commercial broadcast television. How should this medium be used? Should it be used for traditional instruction or for motivation? Clearly, the best course is motivation, for the networks cannot afford to give up valuable broadcast time for teaching reading and writing. They can, however, provide time for short motivational programs and also should be encouraged to weave illiteracy conflicts into plot lines of shows.

The BBC Model for Combatting Adult Illiteracy

There is a good model for the use of television in combatting illiteracy. The British Broadcasting Corporation (BBC) implemented a plan in the early 1970s that used television as a motivator to get students into literacy programs and to recruit literacy volunteer teachers. Television was used to reduce anxiety and stigma, instead of for direct instruction. Programs were broadcast in prime time to ensure that functional illiterates would encounter them. Producers of general programs were encouraged to include the literacy message.

"On The Move" was the title of the BBC series. It consisted, in its first series, of fifty 10-minute programs appearing three times per week in prime time. In "On The Move" well-known television personalities performed, key words were introduced in an appealing way, and testimonies of nonreaders were given. Each program concluded with information on where the nonreader could obtain help and a phone number to call (Marchilonis and Niebuhr, 1985, p.12). The series is significant because it was part of a national effort and was responsible for getting a number of literacy and other organizations to work together.

Present United States National Effort to Use Television to Combat Adult Illiteracy

Currently, "Project Literacy, U.S.," otherwise known as Project PLUS, is a joint venture by the American Broadcast Corporation (ABC) and the Public Broadcasting System (PBS), initiated by PBS to increase nationwide awareness of the illiteracy problem in the country.

The one-hour PBS pilot documentary entitled "A Chance to Learn" will air on September 17, 1986. The show focuses on a variety of programs around the country that fight the crisis of adult illiteracy. It examines state, city, community, and individual efforts that use volunteers and professionals. The film identifies various techniques such as traditional classroom, special classes, one-on-one tutoring, and computers.

Initially, PBS announced its cooperative venture with ABC under the motto "Outreach Project" in a press conference in Washington, D.C., on December 10, 1985. The goal of this outreach program was to raise public awareness of the illiteracy problem and to spur communities into action.

ABC, as PBS' partner in Project PLUS, plans a documentary on illiteracy narrated by "World News Tonight" anchor Peter Jennings for September 3, 1986. In addition, "This Week with David Brinkley" plans a program for September 7, 1986. A multipart "World News Tonight" report airs September 8-12, and both "20/20" and "Nightline" plan illiteracy segments. So significant is the critical problem of adult illiteracy that more than 20 such programs will be aired on ABC over the next year.

Over 300 local task forces are now in operation and will be responding to Project PLUS within their communities in an effort to provide assistance. Ninety-five national support groups such as the American Legion and the PTA will assist the project in various ways, distributing material to publicize efforts, staging events to bring attention to the problem of illiteracy, or even providing tutors. However, this effort may very likely lead to a surplus of students and a shortage of tutors as publicity motivates adult illiterates to seek assistance.

Broadcast television has been primarily used for motivation and channeling of students to appropriate adult technology literacy centers. However, local participating cable companies could greatly alleviate the problem by providing channels for programming of direct instruction in prime time. The establishment of a UHF channel dedicated to adult literacy programming would be ideal since broadcast television would reach the largest number of persons. While part of the programs can be instructional programs aimed at individuals watching alone, a significant part of the programming ought to involve the literacy helpers previously described. A model for this use of literacy helpers follows in the next section.

Radio Sutatenza

Radio Sutatenza is a telecommunications model for adult literacy which uses radio. It is a very good model and can be adapted for use with television. Radio Sutatenza was founded in 1947 in Sutatenza, Colombia, by parish priest Father José Joachim Salcedo. Father Salcedo started with a homemade radio transmitter and three radio receivers. The system has grown to over 20,000 radio schools and has taught hundreds of thousands of rural Colombians to read. It also has provided for their spiritual growth as Catholics (Schramm, 1977).

Radio Sutatenza broadcasts about 19 hours a day. Its parent organization, Acción Cultural Popular, publishes a weekly newspaper to augment the teaching of the radio station. This newspaper has the largest circulation in Colombia (Schramm, 1977).

The curriculum is aimed at problems found in rural life. It deals with health, literacy, mathematics, economy, work, and spirituality. Schramm describes the radio school as

> neither a building nor a formal organization, but rather a group of persons who have decided to study. The average number is six to ten. They come from the same neighborhood, sometimes the same family. They are usually brought together by an *auxiliar* (auxiliary), a helper who volunteers to organize the radio school. He is not paid for it, and has little or no special training. He may have been through it (a previous training cycle) himself, and in any case he ordinarily has a little more education than the students he brings in. He organizes the group, finds a way to obtain use of a radio and a meeting place (usually in a student's home), and then serves as a group leader until and unless other leadership emerges. He usually listens along with the students and learns with them. If a student seems to be withdrawing from the study group, he tries to find out the reason and do something about it, if possible. (p. 245-246)

The key to this project was the use of study groups led by the volunteer helpers. These groups are essential to the process. They provide the motivation and reinforcement needed by the learners. Thus, the best chance for reaching large numbers of functional illiterates will be in their homes, or community centers, with "instruction" delivered via a television literacy channel. The students should work as a group jointly with literacy helpers and be supported by additional print and audio materials.

This use of television avoids in part the reasons frequently given for not participating in literacy programs (lack of money, time, transportation, child care, or information about programs). While we should not expect these same people now to rush to a "literacy TV channel," we can expect a significant increase of literacy learners in homes, since the evidence indicates that adults offered instruction with groups of friends or family members are more likely to initiate efforts to improve reading skills and more likely to keep on studying. The Sutatenza project was implemented within a Hispanic culture. Accordingly, the model seems particularly applicable to Hispanic adult illiterates living in the United States.

Classification and Description of Adult Illiterate Subgroups

The population of dropouts, undereducated adults, and out-of-school youths is diverse, with many different learning needs, including a large number of limited-English-speakers who need instruction in English as a second language. Houston area agencies are serving over 10,000 illiterate adults. (However, this number is hardly representative, considering that informal estimates list up to 500,000 illiterates living in the Houston area.)

Most of the clients involved in current literacy programs are from minority groups, and over one-third are limited in English. The vast majority are working-class poor of various levels of employment. There are a few middle- and upper-middle-class whites being served.

The diversity of learning needs is a compelling reason to combine a number of delivery systems capable of providing individualized instruction. A preliminary grouping of the learners has been done for the purpose of this proposal. Each group can be represented in relation to learning needs on a continuum of beginning literacy to advanced literacy skills instruction. Table 2 represents this continuum (Horner, 1975).

Table 2
Limited-English-Speaker Literacy Groups

Beginning- Advanced

Group 1 Group 2 Group 3 Group 4 Group 5

Group 1: Limited-English-speakers, Level 1, whose literacy level is below grade 3 or whose literacy skills do not transfer to English. They need ESL instruction combined with the beginning basic skills instruction.

Group 2: English-speakers whose literacy level is below grade 3.

Group 3: Limited-English-speakers, Level 1 or 2, who are literate in their their own language and whose decoding skills are transferable but who need to improve their English oral language in conjunction with basic skills improvement. Their literacy level is between grades 4 and 7.

Group 4: Limited-English-speakers, Level 3, or English-speakers whose literacy level is between grades 4 and 7, who need to improve their basic skills.

Group 5: Limited-English-speakers, Level 3, or English-speakers whose literacy level is grade 7 or above, who need to improve their skills in preparation for GED testing.

Illiterate Limited-English-Proficient Adults

The target group of illiterate Limited-English-Proficient (LEP) adults can be divided into several categories. The first is the semiliterates, who have some mechanical writing skills and limited oral and graphic skills in two languages, their native language and the second language. However, they have no word attack skills, such as decoding. The second category is functional illiterates, who know the names of the letters in their first language and can copy and recognize some words by sight in English. The third group is functional literates, who have basic literacy skills in their native language but who bring few, if any, word attack skills to learning English. They cannot read for enjoyment, express themselves in writing, or learn new things from the printed word.

An issue of great concern for educators in the field of second-language development is the confusion between language learning and learning to read (Horner, 1975). Underlying the interrelationships between language and literacy skills is the assertion that language skills are essential for learning to read and to write.

Second-language specialists have the task of educating the illiterate student. This effort is compounded by simultaneously having to teach two distinct skills areas: the language skills and the literacy skills.

Second-Language Skills and the LEP Adult--Methodology Issues

Language learning has specific skills associated with it. English-as-a-Second-Language (ESL) methodology is the instructional approach used in many elementary and secondary schools. There are four basic components: listening (aural), speaking (oral), reading, and writing. These are progressive steps in learning a second language; they must therefore be introduced sequentially. The student must have sufficient opportunity to listen to the new vocabulary and/or the grammatical structure that is being introduced before he or she is ready to speak. Note that the language learner can understand more language than he or she can produce.

In the initial stages of second-language development, the student should be exposed to receptive language, which becomes productive language in later stages. Once the student has grasped the basic concepts that have been introduced (listening and speaking), the next step is the reading stage. This step should provide sufficient practice to establish the sound/symbol relationship in the new language.

Writing is the last step in the methodology. It solidifies the student's grasp of vocabulary and structure and complements the other language skills. Reading and writing also require much practice and must be introduced in the same fashion as the earlier components. The reading and writing stages in second-language development are introduced during the intermediate and advanced language-proficiency levels and not at the beginning level.

Given the limited definition of literacy as the ability to read and write English at a level high enough to attain self-sufficiency in society, plus the belief that the aural-oral skills inevitably precede reading and writing, there is little recourse but to try to develop the student's ability to speak and understand English before teaching reading and writing.

Horner (1975) states that if the student cannot be taught literacy skills in the native language and if the factor of "high redundancy-recognition" (recurring language patterns facilitating quick word/concept recognition) is not critical to the acquisition of literacy skills in the native language, then an assertion can be made for first introducing and carefully practicing through ESL methodology the language material that the student will ultimately read. The key to this process is mastery of the patterns of spoken language. If a limited amount of the second language is introduced to the students and if they are given enough exposure/experience with it to make them functional in the language, then they will quickly learn to read and write it.

Adult LEP students cannot wait until a phonetically appropriate time to learn how to read requests for personal information, nor can they wait until they have had extensive practice in letter formation to learn how to write this basic information. Therefore, the request for personal information is taught orally for listening comprehension and as sight words for reading. No regard is given at this stage to phonics or extensive practice in letter formation. The goal is simple: learn to say and write personal information as quickly as possible.

Which Technologies Are Available for Adult Literacy?
(IDENTIFICATION OF ELECTRONIC TRANSMISSION SYSTEMS--Project Goal #2d)

Technologies, which are usually taken to be electronic transmission systems other than a classroom teacher, may be divided into two basic categories, although at times the line tends to blur between them. Schramm (1977) identifies them as "Big Media," which are "complex expensive media like television, sound films and computer-assisted instruction," and "Little Media," which refers to simpler devices such as filmstrips, overhead transparencies, radio and the now defunct programmed texts.

LITTLE MEDIA

Audio cassettes
Worksheets
Textbooks
Filmstrips
Radio

BIG MEDIA

Instructional Television Fixed Service--uses upper reaches of UHF spectrum (above 2,500 mHz). FCC regulations permit any single licensee to operate up to four separate channels at very low cost.
Fiber-optics TV transmission--images transmitted over fiber cables
Interactive TV--capable of two-way communication
Broadcast TV--signals received over a wide reception area
Satellite/cable TV--broadcasts relayed via satellite and delivered over coaxial cable
Videocassette recorders--permits local recording and playback of video material
Videotext--two-way interactive channel which uses coaxial cable or telephone lines
Teletext--one-way transmission using the vertical blanking interval of broadcast TV signal
Videodisc--holds sound and motion images which are analog recordings and are instantly accessible via laser technology
Compact disc--holds huge amounts of digitally recorded data instantly accessible via laser
Computer-assisted instruction--classroom instruction facilitated through computers

Each technology has a time and a place dictated by the needs of a particular project. To achieve a unified approach it will be necessary to use these technologies in a systematic manner to bring the greatest amount of benefit to the largest number of people. For individualized instruction the use of optical laser disc technology in combination with computers holds particular promise, since it facilitates the use of audible and visual reinforcement for individual learners. To reach large audiences, broadcast commercial television and its variations, such as cable television and instructional television fixed service (for small local audiences), are most appealing.

High technology has become the impetus for educational reform in the '80s (Levin and Rumberger, 1983). According to Rubin and Weinberger (1985), intelligent technologies show extraordinary promise for meeting special needs. In contrast to traditional educational approaches, which require learners to adapt to fixed presentation formats, newer technologies are capable of adapting presentations to the needs and capabilities of the learners. The use of technology to deliver instruction for adult literacy programs is a feasible solution because of the large audiences that can be reached.

When planning for a technology-related system for adult literacy programs, it is probably best to use several technology systems, since a variety of methods and materials is more likely to reach the diverse target audience. The systems to be recommended for use with adult literacy instruction are commercial and cable television, video, videodisc, and computer-assisted instruction. A brief description of each system will be given along with the advantages and disadvantages of each medium. Resources for use with these media are listed in Schedule E.

Television/Video

Television/video is an important medium of instruction in large-scale educational reform, because it obviates the need for highly skilled teachers, is capable of reaching remote areas on a regular basis, and is democratic, since television teachers display no partiality. Television/video has been used successfully in several adult literacy projects reported in the U.S. AID Study Project Profiles (1978). The findings show that students exposed to television as the medium of instruction made significant gains over peers in traditional classrooms. The advantages and disadvantages of television/video are as follows:

Advantages

- Cost-effective
- Materials readily available
- Large audience potential
- Convenient to students
- Four cable channels available through HISD and Region IV

Disadvantages

- Little personal contact unless interactive television used
- Student progress difficult to chart
- Individualized instruction unavailable
- Access to cable TV limited
- Access to video cassette players limited

Microcomputers

The microcomputer offers great versatility as an instructional system. It combines the basic instructional practices of engagement, attention, and motivation. The most powerful characteristic of computer-controlled instruction is its ability to adjust itself to the needs of the individual learners. It is possible to focus practice on specific target skills and also to individualize instruction to a high degree.

Advantages

- Individualized, self-paced instruction
- Some materials available
- Able to reach larger population than one-on-one instruction
- Computerized management of student progress and records
- Potential for development of specialized materials

Disadvantages

- Little personal contact
- Few available materials appropriate for adult learners
- Technology available only in special centers

Videodisc

Videodiscs store the same type of information as videotape but offer highly efficient random-access retrieval. Videodisc-based products are designed to provide instruction for a wide range of learners in a variety of instructional settings. Videodisc technology will facilitate group instruction or individual instruction.

Advantages

- Self-paced instruction
- Useful for large-group instruction
- Potential for development of specialized materials

Disadvantages

- Limited materials available
- Technology available only in special centers

Instructional Approaches
(AVAILABLE INSTRUCTIONAL MATERIALS COMPATIBLE WITH ELECTRONIC TRANSMISSION SYSTEMS--Project Goal #2e)

The task of determining instructional approaches will depend on the content area and learner needs and the capabilities of the delivery systems. The following discussion of delivery system components is based on a review of adult literacy materials done by HISD.

Table 3 is an overview of the components of The High-Technology Delivery System Model for Adult Literacy which can be used for each group of literacy learners as noted in Tables 1 and 2, indicating the instructional areas in which existing commercial materials can be purchased and areas in which new materials will be developed. A detailed list of resources for use with these media is found in Schedule E.

TABLE 3
Student Group and Type of Instruction

	Group	To Be Developed	Commercial
1.	ESL 1 Literacy 1 (below grade 3)	• CAI ESL 1 • CAI Reading 1 • Print • TV	• Math 1 CAI (e.g., Milliken Math)
2.	English-speakers Literacy 1	• CAI Reading 1 • Print • TV	• Math 1 CAI (e.g., Milliken)
3.	ESL 1 or 2 Literacy 2 (grades 4-7)	• CAI ESL 1 or • TV-ESL 2 • Videodisc • Print	• Intermediate-level literacy cable TV (e.g., "Another Page," Kentucky Educational TV, KETV)
4.	English-speakers Literacy 2 (grades 4-7)	• Videodisc • Print • TV	• Intermediate-level Cable TV series (e.g., "Another Page," KETV)

5.	ESL 3 or English-speakers Literacy 3 (grades 7+)	• Videodisc • TV • Print	• Intermediate-level cable TV series (e.g., "Another Page") • GED preparation cable TV series (Kentucky)

The Reading and ESL software can be used in literacy centers by the Level 1 ESL students with lowest literacy skills. A television series can be used by all students. The videodisc will be used in literacy centers by all students with intermediate literacy skills to teach new literacy skills. The commercial cable television programs will be used by Level 3 ESL or English-speakers.

Nature and Ideal Characteristics of Five Prime Media

Computer-Assisted Instruction (CAI)

To date there has been a paucity of reading software developed in the range of reading ability from level 0 to level 3. Software that employs speech as a tool to teach reading has been virtually nonexistent. The interactive nature of CAI and the availability of "speaking" software makes it an excellent delivery system for the Group 1 and Group 2 students (skills below grade 3). CAI is especially attractive if funding is available to subsidize computers in the homes, in community centers such as libraries, and in work sites. School sites for literacy centers already have computer labs, which may be utilized for evening classes.

The reading software already developed by the Department of Technology of the Houston Independent School District (and recommended by the Subcommittee on Program Analysis and Intervention Strategies; see Appendix III) will provide a good model for development of beginning reading software for Group 1 English-speaking adults.

Revisions in design will be required in the story content and the graphics, which currently are appropriate only for young children. However, the instructional model should transfer quite effectively without the labor-intensive work required for its original programming. The Department of Technology's FunWriter and D.O.T.Writer would seem to be natural candidates for word processing software to be used in the instructional program.

The software developed should be used with the Comprehensive Competencies Program (CCP); however, this product lacks curriculum for adult reading levels 1-5. (See complete committee recommendations in Appendix III.)

Additional areas suggested for exploration include (Nickerson 1985):

- Development of speech-to-text systems allowing speech to be accepted as input and output
- Development of a system to teach the meaning of product labels
- Plays and films captioned for reading practice
- Providing simulations requiring reading skills for solution
- A word processor designed for adults that allows the use of pictures as writing aids
- A talking word processor that provides suggestions for writing in progress

The ESL software developed by HISD's Department of Technology will provide a good model for development of beginning ESL software for Groups 1and 3 and Level 1 LEPs. Revisions in the design will be required to include areas of interest for adults.

Television/Video

The television option is particularly strong for delivering instruction to the homes. The ability to reach a large population of people easily, especially via UHF channel, as well as the possibility of working through local cable companies, suggests that television should be a part of the delivery system.

The establishment of a UHF channel dedicated totally to adult literacy programming would be ideal. In any neighborhood, regardless of income levels, televisions equipped to receive UHF channels can be found. The literacy helpers previously described could work with families and/or groups of individuals and watch with them the television programs distributed via UHF signal. This would save a great deal of expense and time involved in wiring homes for cable.

Naturally, developing programs to be used in conjunction with literacy helpers, as well entertaining programs used to attract and keep viewers with the literacy channel, will call for a substantial investment. If the establishment of a new television channel is too expensive or if the option of buying time on a local channel does not exist, then production of new videotape series designed to be used with literacy helpers would be a viable alternative.

This additional direct instructional videotape programming can be utilized within the literacy centers. Preliminary review of available video programs has suggested that appropriate programs are available only for the English-speakers in Group 4 (intermediate literacy). These programs include those developed by Kentucky Educational Television and New Jersey's Department of Education.

Video development is recommended for the Group 3 and Level 1 or Level 2 limited-English-speakers who have basic literacy skills. The instruction will serve as transitional material to allow them to develop their English and progress to the video lessons used by the Group 4 English-speaking students.

Sections of the ESL video footage and new footage to summarize reading concepts presented in detail in the CAI lessons will be used to develop a Level 2 videodisc. The videodisc will be interactive and allow for extensive use of still frames. These qualities make videodisc an excellent medium for reviewing or testing concepts. The videodisc will be designed to sample instruction appropriate for the four groups and ensure that they are ready for the more advanced video programs.

Radio

Radio has been used in a number of instances to teach English to non-English-speakers and to teach literacy skills in a variety of countries. The Voice of America broadcasts several shows a day in "Special English," which is English spoken very slowly so as to make it readily understandable. Radio Sutatenza in ColOmbia (see p. 31) has successfully taught literacy to rural Spanish-speaking Colombians for several years.

Radio time should be purchased on local stations for the reading in Special English of newspapers and magazines. This would provide additional opportunity for adult learners to learn to read.

Print Materials

Because print materials require labor intensive-tutoring and highly trained teachers to provide the individualization and interaction necessary for literacy development, they will be integrated with the CAI and video components of the Adult Literacy Plan to provide reinforcement.

Preliminary review of instructional print materials suggests that the Laubach series is appropriate for all levels of literacy skills development for both the English-speaking and ESL students. Teaching strategies and transitional materials allow the ESL students to use the regular workbook series as long as it is carefully explained by the teacher or tutor.

Another series, "New Beginnings in Reading," might be considered for Group 4 English speakers who wish to improve their reading and writing skills. These workbooks are designed around readings which are intended to be of high interest and are relative to adult life.

Electronic Communication Network/Electronic Mail

Currently, written communications among the various local organizations working with adult illiterates are highly limited. There is no central bulletin board that all of the organizations can use. There is no newsletter carried as a standard by all of the organizations which contains relevant information from all the agencies on what is going on in the region. Even if a newsletter were published, it would rather quickly become outdated. There are no data bases available in the region which contain up-to-date lists of people in need of tutoring or available tutors. In many cases adults do not receive help simply because directors do not know the schedules of the various tutors well enough to match a student to that tutor. An umbrella group of organizations (READ) was formed a year ago to provide for this information exchange. However, communication is still a very critical issue.

A well-designed telecommunications system could help solve many of the organizational communications problems that currently retard the efforts of literacy organizations to serve the massive illiterate population. Electronic mail would ensure that a message would be sent and responded to, even when an individual might not be immediately available. A central bulletin board could be used to share information on adult illiteracy and its solutions. Data bases on students in need of tutoring and available tutors could be created. Students could be matched electronically to tutors by means of simple data base programs. Many other applications would no doubt emerge as the system was implemented.

In order for a telecommunications system to be effective for the agencies currently working in the area of adult literacy, four basic requirements must be met. These are:

- *Low-cost hardware and software*--Most of the adult literacy organizations have very limited funds to spend on a telecommunications system. High-powered systems involving sophisticated minicomputers or mainframes would be impractical.

- *Ease of use*--Very few of the volunteers working with the adult literacy organizations have had any experience working with microcomputers. Even fewer have ever used one as part of a communications system. If extensive training is necessary to use and maintain the system, it will be difficult and costly to implement.

- *Rapid implementation*--The adult literacy problem is already very severe and is deteriorating rapidly. A system that takes one or two years to implement would be very costly in terms of lost time.

- *Flexibility* --The system must be capable of handling a wide variety of hardware. In this way agencies can use whatever existing hardware they already have, without having to buy a lot of additional computer equipment.

There are several major telecommunications systems in the Houston area. Most are sophisticated systems geared for business communications. Many run on mainframes or minicomputers and assume that a full-time, highly trained operator is available to manage the system. One system, however, which appears to meet most of the requirements previously specified has been identified. This is E-Net, the electronic communications system currently in use by the Houston Independent School District.

E-Net is a group of microcomputers linked by means of standard telephone lines to exchange information. When information is transmitted from one computer to another, a modem converts the digital computer signal into an analog signal that can be sent over the wires. Another modem at each receiving station then converts the signal back into digital form for the receiving computer to read. The E-Net system will support any of the following personal computers:

- Apple *II* e (but not enhanced *II* e)
- Apple *II*+
- Apple Macintosh
- Franklin Ace 1000 with 16k RAM card added
- IBM PC
- IBM PC-XT
- Radio Shack Model 100

E-Net users currently have access to four important functions for sending, receiving, and filing information:

- *Bulletin board*--for posting information that can be read by every other user

- *Electronic mail*--for sending and receiving personal messages to specific users. Any user can send mail to another mailbox, but only you can read mail sent to your own mailbox.

- *Data bases*--containing information about a wide range of topics

- *Overnight fanouts*--electronic mail messages sent simultaneously to all users of the system or selected groups of users

The E-Net telecommunications system is already in operation at over 250 sites throughout the Houston ISD area. It is a very inexpensive, flexible system. The system software, created by HISD's Department of Technology, was specifically designed for use by teachers and administrators with minimal experience in using computers or telecommunications systems. It has proven very easy to use and maintain.

Project Evaluation

The focus of evaluation will be to assess the success of the delivery system in attracting and serving adult illiterates and the achievement of literacy by participants individually and across the service area. The evaluation will involve process and product components.

Process evaluation will require monitoring of all aspects of program implementation, including:

- Equipment and software specifications
- Instructional strategies
- Community contacts
- Recruitment methods
- Site locations

Formative and process data will document successful aspects of the program and will be used for feedback to the Project Director, as well as a handbook for dissemination to others who would replicate the program. The formative component will examine the organizational structure of the delivering agency. The process evaluation will provide a detailed case history of the program and ongoing information about strengths and weaknesses. Process data will record the following:

- Frequency of recruitment of literacy helpers and participants
- Numbers of participants involved at any one time
- Participants' and helpers' assessments of the program

A standardized measure of reading ability will be incorporated into the software used at the Literacy Centers. This measure will be available in paper-and-pencil format for use by literacy helpers. The measure will provide diagnostic information as well as current achievement data on each participant. The measure will be integrated carefully into the literacy program so that each participant's progress can be tracked over time.

At the city level, a global index of adult literacy will be taken yearly. Even though this index can not be an exact measure of the effectiveness of The Regional High-Technology Delivery System Model for Adult Literacy, it will provide feedback about literacy trends in the city.

Plan for High-Technology Approach to Adult Literacy
(DEVELOP A DELIVERY SYSTEM--Project Goal #3a)

Any new plan that hopes to end or even alleviate the problem of adult illiteracy must (1) use what has been learned from the successes and failures of older programs and (2) increase the number of persons reached by the original programs.

Based upon the research from the work of the committees cited in this report, the plan contains several recommendations:

- Use of Technology Literacy Centers
- Use of computers to reinforce ongoing programs
- Use of Television/Video to extend the reach of the system
- Use of electronic mail system to facilitate communication among centers
- Use of an alternative system of literacy helpers in combination with Television/Video to extend the reach of the system

The Adult Literacy Plan will be disseminated in part through Literacy Centers throughout the Houston area. Two types of centers are planned. The large centers, consisting of a computer laboratory and a study center, will be located on the basis of areas of need determined by the HISD School Dropout study. (See Step 2: Establish Technology Literacy Centers.) There should be at least one in each quadrant of the city. Smaller "satellite centers" to maximize accessibility will be located in many community locations, such as libraries, churches, and job sites.

Technology Literacy Centers consist of two rooms--a laboratory and a study center. Designs for the two rooms are also found in Schedule D, where page D2 illustrates a main laboratory and page D3 illustrates the adjacent study center.They can be placed in locations such as school buildings where computer labs already exist (in order to save on costs) or can be established as new facilities. Motivated adult illiterates from economically depressed groups would receive the most efficient education in the Technology Literacy Centers. However, illiterates' participation at these centers is not ensured, since they associate formal schooling with failure; hence those not served by the Technology Literacy Centers (or regular adult illiteracy facility) will be reached by a combination of television and literacy helpers.

Additional learners will be reached with a combination of instructional television programs, educational television programs, (shows of general related interest), literacy helpers, and print materials.

Step 1: Select and Hire Coordinating Staff

A central staff will be necessary to coordinate all the facets of the regional delivery system for adult literacy education: purchase of equipment for Technology Literacy Centers; preparation, selection and purchase of materials for broadcast; coordination of cooperating television agencies; coordination and support of literacy helpers; production and purchase of supporting print materials; and coordination and maintenance of the electronic mail and database system.

- Project Director, Associate Director, Administrative Assistant
- Database Director, Programmer
- Project Evaluator
- Television Producer, 2 Television Writers, 3 Television Teachers
- Technology Literacy Center Coordinator
- Literacy Helper Coordinator, 4 Field Workers, Administrative Assistant
- Print Editor, 2 Writers
- 2 Secretaries

Step 2: Establish Technology Learning Centers

With the exception of Houston Community College and the Harris County Department of Education, the agencies involved in adult literacy projects in Houston are serving their clients in donated space in churches and libraries throughout the city.

- Maintain existing literacy centers but reinforce them as satellite Technology Learning Centers with appropriate technology and software.

- Establish new technology learning centers at locations such as the communities surrounding Davis, Austin, Kashmere, Wheatley, Jones, and Reagan high schools (based on the Dropout Study, which substantiates the high degree of failures at these campuses); in the inner city at Main and Elgin; in the fourth ward near the Allen Parkway housing project; behind the Ripley House on Lovejoy; and in the Mercado del Sol

- Establish adult Technology Literacy Centers in shopping malls and other areas that potential learners are likely to frequent. Have these technology-based centers offer adult basic education in a fashion similar to that of the minor medical emergency facilities now appearing in all parts of the country.

- Use the HISD Department of Technology ESL and reading software designs as models for appropriate voice-interactive literacy software for ability levels 0 to 3.

- Use existing Adult Basic Education computer software. The Comprehensive Competencies Program, funded by the Ford Foundation and distributed by the Remediation and Training Institute in Washington, D.C., is a good example of a low-cost, effective way of providing computer-based literacy training for ability levels 4 and above, and should be used in the Technology Literacy Centers.

- Establish computer checkout libraries within the Technology Literacy Centers with software provided to teach literacy. The system should model itself on the *Computers Can* Program of the Houston Independent School District which was designed to increase the basic skills of low-achieving elementary school students. In the HISD program, parents are trained with their children to use computers. Computers and appropriate software are checked out for home use to families that complete the training course. The family is seen as a very critical unit, which should be considered as a whole when addressing the illiteracy problem.

Step 3: Use Television/Radio

Since the adult literacy centers will be limited in capacity, the remaining adult illiterates should be targeted with TV programs. These should contain practical information related to everyday living, such as filling out a variety of forms and paying bills. The programs should appear on a form of literacy TV channel with a mix of instructional and literacy-related entertainment shows. The latter are designed to increase and retain the viewing audience. Literacy lessons should be watched with a group leader, most likely a community literacy helper, to provide the social support shown to be necessary to make learning by television (or radio) effective.

- Use broadcast television for special programs to motivate and channel students to appropriate adult literacy centers.

- Embed literacy messages in the plot lines of regular commercial television programs.

- Establish a literacy channel on UHF or cable television.

- Wire literacy centers and selected homes for cable television if UHF is not available.

- Organize literacy helpers to work with individuals and groups of students as they watch the literacy programs.

- Have the literacy channel broadcast programs of general interest in addition to straight teaching of literacy skills.

- Support the literacy channel with print materials such as related magazines and books.

- Use specially prepared videotape lessons with literacy groups and helpers viewed in community centers in the event that the establishment of a literacy TV channel is not feasible.

- Use the radio station to reach homes with "Special English" (English spoken very slowly, clearly, and distinctly) broadcasts, readings of newspapers, etc.

Step 4: Helping the Helpers

The existence of literacy helpers suggests an additional path for any major project to eradicate adult illiteracy. Since existing agencies, the proposed Technology Literacy Centers, and even televised literacy lessons cannot possibly meet the present or projected need for adult literacy training, literacy helpers should be used. The use and support of literacy helpers to alleviate the problem of adult illiteracy is an alternative adult literacy delivery system that can extend the reach of present resources.

The Laubach Literacy International and Literacy Volunteers of America, Inc., organizations have pioneered in the attempt to use literacy helpers (Reder, p. 33). The following steps are recommended for assisting literacy helpers:

- Recruit and encourage literacy helpers to learn a variety of teaching techniques and to become literacy tutors.
- Provide the necessary training for the literacy helpers to increase their skills (via an agency, television, radio, or newspaper).
- Alert literacy helpers to the fact that they can actually teach literacy in addition to providing assistance with everyday reading and writing tasks.
- Provide the literacy helpers with teaching tools ranging from workbooks to computers, with appropriate software, to enable them to teach more effectively.
- Have the literacy helpers encourage the functionally illiterate adult to enroll in formal courses.
- Have special UHF television literacy courses designed to be viewed by literacy helpers and functionally illiterate adults.
- Learn from the experience of literacy helpers. Develop curricula based upon the true needs of the adult learner rather than on "arbitrary assumptions about what literacy tasks all adults 'must' be able to perform independently" (Reder/Green, p.34).

Step 5: Establish Electronic Communication Network

To facilitate communication among Technology Literacy Centers, an electronic communication network should be established to allow tutors in various locations to communicate with each other via electronic mail.

- Track students when they use a new center, thereby permitting them to resume study exactly from where they left off.

- Post information on bulletin boards that can be read by every user.
- Send and receive electronic mail to specific users.
- Research data bases containing information about a wide range of topics.
- Send electronic mail messages simultaneously to all users of the system or selected groups of users.

Step 6: Evaluating the Process and the Product

Process evaluation will monitor all aspects of program implementation, including:

- Equipment and software specifications
- Instructional strategies
- Community contacts
- Recruitment methods
- Site locations
- Frequency of recruitment of literacy helpers and participants
- Numbers of participants involved at any one time
- Participants' and helpers' assessments of the program.

Product evaluation will assess the amount of improvement in literacy skills by individual participants and across the city.

- Incorporate a standardized measure of reading ability into software used at Literacy Centers.

- Provide diagnostic information as well as ongoing achievement data about each participant.

- Implement paper-and-pencil format for use by literacy helpers.

- Track each participants progress over time.

At the city level, take a yearly global index of adult literacy. Even though this index can not be an exact measure of the effectiveness of the Regional High-Technology Delivery System Model for Adult Literacy, it will provide feedback about literacy trends in the city.

Implementation Plan

DEVELOP AN IMPLEMENTATION PLAN FOR ACCESSING, STORING, AND TRANSMITTING INSTRUCTION TO PUBLIC AND PRIVATE ADULT LEARNING SITES VIA ELECTRONIC TRANSMISSION SYSTEMS--Project Goal #3b

STEP 1-- SELECTION OF CENTRAL OFFICE STAFF

October 1986

Select administrative and central support personnel to make critical project decisions and create instruction for mass distribution. Persons selected will have had a great deal of administrative and technical experience. The literacy helper division must have had previous experience in community-action types of projects.

STEP 2--SELECTION OF DELIVERY SYSTEMS

December 1986

Decide on computer equipment configuration and finalize television delivery system (cable or new UHF channel, or buy time on a local UHF or VHF channel). A multimedia delivery system is recommended for this program. Videodiscs will also be used in the centers. Video programming for use on broadcast or cable UHF television will be an integral part of the program. A radio station for delivering the special English broadcasts must be chosen. (Apple *II* e and Macintosh computer systems are being recommended for use in the literacy center and satellite units.)

STEP 3--SITE SELECTION

December 1986

Training centers will be located in areas convenient to the program participants' homes. To facilitate this, at least one literacy center will be located in each quadrant of the city. Each Literacy Center will be served by two satellite centers and possibly a mobile satellite center. Ten satellite centers are planned for the project.

STEP 4--SELECTION OF TECHNOLOGY LITERACY CENTER STAFF

January 1987

Selection of highly qualified staff members is essential to the success of this project. During staff selection, careful attention will be given to professional training and experience in adult education. Since many adult illiterates come from minority groups, a significant percentage of the personnel selected for the program will be qualified representatives of these groups. Other criteria for the selection of staff will be fluency in Spanish and the ability to use computers and video equipment in instruction.

STEP 5--TECHNOLOGY LITERACY CENTER STAFF TRAINING

February 1987

Training will take place on all equipment to be used in the labs. In addition, all staff working within established literacy centers will be trained in the techniques used by the particular centers. All staff will be taught how to relate the work of the literacy helpers to the learning accomplished in the literacy labs. Permission to use laboratories in Houston Independent School District for training purposes will be obtained.

STEP 6--EQUIPMENT PROCUREMENT

March 1987

Bid specifications will be completed and requests for bids announced. Contracts for use of broadcast air time or the use of a cable system will be obtained and procedures initiated for obtaining a UHF channel license.

STEP 7--RECRUITMENT AND INCENTIVES

July 1987

Announcements about the Regional High-Technology System for Adult Literacy Program will begin at least two months before the program's activities. Spot announcements will be planned for dissemination to all local media representatives. Civic clubs, churches, schools and all community organizations that have close contact with families will be asked to inform their patrons of the program. Bumper stickers, placards, and posters will be displayed in prominent locations. Businesses and industries will be requested to refer employees who need assistance.

A vital part of the recruitment process will be to publicize the incentives available for participating in the program. Many persons will be entering the program because of the need for literacy skills, but when they are confronted with demanding circumstances, their continuation in the program might be threatened. Encouragement will be available for those who remain and succeed in the program. A plan to provide job opportunities, advancement on the job, scholarships, salary increases, recognition ceremonies, military enlistment, openings in special programs, and advance placement in a GED program will be developed to reward those who cultivate adequate literacy skills.

STEP 8--SCHEDULING

July-August 1987

Literacy centers and some satellite centers will be open 16 hours a day. Each center will be able to accommodate 60 people at any one session. The study center will be able to serve an additional 30 persons. Thus, one hundred or more persons can be trained during a morning or afternoon session. A flexible design for scheduling will be developed, and there should not be an excessive number of students during any one period. All coursework will be individualized, and each student will be able to proceed through the training units at his or her own speed.

STEP 9--IMPLEMENTATION OF LITERACY HELPERS PROGRAM

September 1987

Initiate publicity campaign via television, community, and church groups to identify persons already assisting adult illiterates with reading tasks. Prepare three-part approach: (a) supply literacy helpers with materials to help them do what they already are doing (i.e., assisting community members with reading tasks); (b) prepare televised teaching tips for literacy helpers, and schedule them for broadcast as public-service messages on commercial TV stations; (c) recruit literacy helpers to be leaders for groups of students watching televised instruction on the proposed literacy channel.

STEP 10--COMMENCEMENT

September 1987

The anticipated date for the program to begin will be September 1987. At that time program funding, training, site locations, and project organization should be completed. All staff members should be trained and fully aware of the challenge and the responsibilities of their positions. Furthermore, the community will be fully aware of the seriousness of the literacy problem and its effect upon the well-being of this urban community and its surrounding areas.

STEP 11--DOCUMENTATION AND EVALUATION

Ongoing

The Project Evaluator will monitor the project and provide feedback to the Project Director. The research representative will compile data that can be used in the handbook on the development and operation of the program. This handbook will serve as a guide for the initiation of similar projects. It will contain equipment specifications, program selections, location sites, instructional strategies, recruitment methods, community contacts, and program evaluation. The research assistant will be involved in all activities outlined in the implementation plan. Finally, the research assistant will conduct a follow-up survey of persons who exit the program. The survey should be conducted annually over a five-year period.

Specifications of the Core Systems
Technology Literacy Centers and Satellite Centers

General Specifications

Apple computers are identified for use in the laboratory since this computer is standard in HISD, as well as in other school districts in Texas and the rest of the United States.

Apple Computer System specifications:
- The enhanced *II* e CPU, 128K, 80 columns and keyboard
- Color monitor
- Two disk drives
- Super serial card

Printer specifications:
- Dot matrix, 160 cps, correspondence-quality print
- Tractor and friction feed
- Serial input

Video cassette recorder:
- VHS 1/2" cassette with remote control
- 4 video heads
- 2 audio tracks

Digital speech playback device:
- External speaker with two headphone jacks
- TMS 5220 speech chip micro processor
- Speech chip and 64K RAM

Optical mark reader:
- Scans a matrix of 80 x 27 bubbles
- Compatible with Apple *II* e
- RS 232 interface
- Reads standard #2 pencil and forms sizes from 3" x 5" to 8 1/2" x 14"
- Full duplex

Laboratory/Study Centers

The main laboratory, as configured, will serve up to 60 students, if they work in pairs, or 30 students working individually at each station. The laboratory includes 20 computers and 10 videotape players. The 20 computers are all fully equipped with speech boards and printers to allow any station to be used with any application software--reading, ESL, Comprehensive Competencies Program, math, or word processing. The computers should be networked to accommodate an on-line management system of student progress. Ten video stations are included to make the video programs shown over cable available in the laboratory in video cassette format.

TABLE 4
Literacy Laboratory Specifications

Equipment	Quantity
Apple *II* e computer system	20
Apple super serial card	20
Network System for Apple *IIe*	1
Printers	20
Digital speech systems	20
Headphones	60
Videotape player	10
Small monitors for video	10
Furnishings	30
Chairs	60
Teacher's desk	1
Teacher's chair	1
Computer cart	1
Storage cabinet	1
Round table	1
Electrical wiring	30
Optical mark reader	1
Bookcase	20
Filing cabinet	1

The study center accommodates up to 60 students for small group instruction using videodisc, cable television, chalkboard, and print materials. It also provides learning stations equipped with audio cassettes for individualized study.

TABLE 5
Study Center Specifications

Equipment	Quantity
Audio cassette players	12
Headphones	12
Videodisc player	1
Large color TV/monitor	1
Apple *II* e computer systems	1
Network system for Apple *II* e	1
Teacher's desk	1
Teacher's chair	1
Computer cart	1
Student stations	12
Tables	3
Bookcases	5
Chairs	60
Filing cabinet	1

Satellite Literacy Centers

Satellite centers are designed primarily to serve locations in which space is limited and a small number of students are to be served, such as job sites or libraries. These centers include two computer stations, two video stations, and a table for individualized study which may include audio cassettes. The design of the satellite center is shown on page D4 of Schedule D.

TABLE 6

Satellite Center Specifications

Equipment	Quantity
Apple *II* e computer system	2
Printer	2
Videotape player	2
Monitor	2
Furnishings	4
Chair	8
Round table	1
Audio cassette player	4
Headphones	4
Bookcase	1
File cabinet for discs and tapes	1
Electrical wiring	4

Television Delivery System Specifications

The literacy instruction will also be disseminated directly to homes throughout the Houston area. At least two options exist. Option one is to deliver the signal via a new adult literacy UHF channel; the second option would be to use a cable television channel. Of the two systems, delivery by a new dedicated UHF literacy channel would be preferable, since the signal would immediately reach all of the sections of the Houston region. A possible third option would be to obtain time on an established channel. (See Schedule I.) Those persons most in need of the literacy lessons are usually those who do not have cable television. Installation of cable television would increase costs dramatically.

UHF

In this instance it would be best to broadcast tapes from an established facility such as KUHT. All standard equipment necessary would be present. It would be required to send a second UHF signal separate from the original signal broadcast by the television facility necessitating a second transmitter, second antenna, and microwave link to the broadcast tower. This would in effect establish a new television channel ready for twenty-four-hour service. An alternative would be to negotiate a block of time on an existing UHF channel.

Cable TV

In addition to the use of a standard cable facility, it will be necessary to add trunk cable, distribution cable, and drops sufficient to cover areas not presently targeted by cable companies.

In either system, basic studio equipment would need to be provided to allow for the local recording of simple literacy instructional programs intended for group use. The specifications that follow are the minimum that would be expected in a television studio:

Audio recorder
Film Chain
Editing decks
Special-effects generator
Time base corrector
Monitors
3 cameras
Audio mixer
Microphones
Lights (key, flood, fill)
Optical multiplexer
Switcher
Video modulator

Computers for Home Use Specifications

The computer software will be made available for use in the home through two programs. The first program will allow individuals to borrow a computer for use with the software. This program concept is based on a successful program currently operating in HISD called *Computers Can*, in which parents have been able to check out computers for the purpose of helping their children learn basic skills. Twelve hours of training is given to the parents and children after school. In many cases the adults are learning right along with their children.

To implement the computer check-out program, each of the four literacy centers will have ten computers available to loan to interested students for a total of 40 computers through the large centers. At least ten satellite centers are suggested. These will each have one computer available to loan. Each computer will be equipped with the Ufonics speech system and a printer. A total of 50 systems is needed to equip the four main centers and the ten satellite centers. The equipment necessary to implement the computer check-out aspect of the project is shown in Table 7.

TABLE 7
Computer Check-Out System Specifications

Equipment	Quantity
Apple system	50
Ufonics speech system	50
Printer	50

Electronic Communication Network System Specifications

Hardware

At the Literacy Centers and Literacy Agency Headquarters

1	Apple *II* microcomputer, 128K (can also be used for instruction), with super serial card
1	5.25-inch floppy disk drives, 140K capacity
1	300-1200 Baud password modem with telecommunications software
1	dot matrix printer with RS232 interface

At the Hub

1	16-bit supermicrocomputer capable of handling at least six users simultaneously through a switched network
1	megabyte of RAM
30	megabytes of non-volatile mass storage
1	high-speed correspondence-quality printer

Principal Software

Data management--permitting compilation of student records, generation of grade reports, tutor-tutee scheduling, filing of instructional materials, and maintenance of historical data.

Telecommunications software--allowing the host computer to receive, file, and communicate data to remote sites.

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SCHEDULE A

AREA LITERACY ORGANIZATIONS

Reading, Education and Development Council

Serving as a coalition for all Houston area literacy groups, the Reading, Education and Development Council helps coordinate activities among the various adult literacy organizations. This office serves as a central telephone line and resource area that refers persons wishing to become a tutor or wishing to receive tutoring to the appropriate organization. The council assists in the publicity and fund-raising efforts of the adult literacy organizations.

For further information, contact Hershel Rich, 521-2345, 3333 Fannin, Suite 202, Houston, TX 77004.

Assault on Illiteracy

Through the use of the Affective Teaching Method, the Assault on Illiteracy Program works in the Black and Hispanic communities to eradicate illiteracy. Volunteer tutors gain required certification by completing an eight-hour training session. Tutor training is available at various public places--libraries, churches, and YMCA's. Tutors are expected to teach three to four hours a week either with individuals or small groups. Tutoring is arranged in three-month intervals and is conducted in public places. *The Houston Sun*, a weekly newspaper that targets news and information in the African American and Hispanic communities, publishes *The Advancer* containing the official Assault on Illiteracy program materials on a weekly basis. *The Advancer* is a comprehensive educational and motivational tool that includes core educational areas: science, geography, spelling/dictionary, history, health, life-learning math, Black and Hispanic history, a detailed tutor's guide, and a criterion-referenced test. *The Houston Sun* is available through the Houston public libraries and some of the school libraries.

For more information, call Dorris Ellis at The Houston Sun, 748-7367, P.O. Box 600603, Houston, TX 77260.

Houston Community College - Literacy Volunteer Tutor Training

In order to give the functional illiterates in the community a chance to learn basic reading skills, Houston Community College has brought into the system professional tutor trainers who teach volunteers in tutoring adult illiterates. The goal of the HCC program is to prepare these individuals to develop enough skills to participate in G.E.D. (General Educational Development) and Continuing Education programs. Volunteer tutors attend twelve hours of training and are expected to work with a small group of students three to six hours per week. Training and tutoring take place at more than 38 sites around the city.

For further information, call Joanna Scott or Dr. Ali Khansari at HCC, 630-7286, 3333 Fannin, Suite 112, Houston, TX 77004.

Literacy Advance

Literacy Advance strives to serve the needs of functional illiterates ages 18-60 for basic skills in reading, writing, and speaking English. Literacy Advance trains and certifies tutors in the Laubach Method in a 12-hour, Basic Literacy course and a 16-hour, English for Speakers of Other Languages course. Tutors are asked to teach one to three students for 1-1/2 hours per session, one or two times per week. Tutors are asked to make a minimum commitment of six months.

For further information, contact Connie Riddle, 668-2401, 4545 Bissonnet, Suite 128, Bellaire, TX 77401.

Literacy Volunteers of America

Literacy Volunteers of America believe that well-trained and supportive volunteers can effectively tutor illiterate adults. The goal of the program is to address the needs of adult students who read below the fifth-grade level. Fifteen hours of training are required. LVA requests that tutors work with their students at least once a week, preferably two times per week, for a period of one year. Training and tutoring take place in public libraries, schools, and churches.

For further information, contact Kenny Washington, 392-0826, or John Russell, 645-4183, 3333 Fannin, Houston, TX 77004.

Region IV Education Service Center, Adult Education Department

The Region IV Adult Education program sponsors evening classes for adults in four counties surrounding Harris County--Fort Bend, Waller, Brazoria, and Liberty counties. These teacher-centered classes, offered at no charge (except for a materials cost), include English as a Second Language, basic skills, and G.E.D. studies. In addition to the evening classes, daytime studies are available at two adult learning centers located at the Stafford campus and the Alvin Community College campus. At these learning centers, students take part in individual descriptive learning activities. The learning centers are best for people who are beginning readers.

For more information, contact Arnie Hinojosa or Linda Gibbs, 462-7708, P.O. Box 863, Houston, TX 77001.

Women's American Organization for Rehabilitation and Training

The Women's American ORT is a national organization of over 150,000 members. One basic purpose of this group in the area of adult literacy is to promote greater public awareness of the problem of adult illiteracy and to help get more community support and participation in literacy programs. ORT acts as a catalyst to mobilize resources within the community to aid adult literacy efforts. Their current project is a business and government conference whereby they plan to involve business and government leaders in the adult literacy effort. They also survey the needs of local literacy programs and develop materials and projects to meet those needs.

By acquiring a grant through B. Dalton Bookseller National Literacy Initiative, the women of ORT were able to address the problem of the public's lack of awareness of the illiteracy dilemma in the Houston area. Their efforts have included developing a flier on the current literacy programs which is now distributed by the public libraries and local agencies, developing a slide presentation explaining the volunteer tutor programs in operation, developing a system to assign people to programs, and developing a screening tool to be used by literacy counselors to improve interview and placement procedures. This group works in conjunction with R.E.A.D. (Reading Education and Development) on many projects.

For additional information, contact Barbara Kazdan, 961-3759, 4740 Ingersoll, Suite 100, Houston, TX 77027.

Adult Education, North Harris County College

The adult literacy offerings at North Harris County College are available through the pre-G.E.D. program and the G.E.D. program. The pre-G.E.D. program includes courses in reading, math, grammar, and spelling. Students can enroll in these courses at any time during the semester for a nominal fee. Once students have completed the pre-G.E.D. courses, they can move on to the G.E.D. program which prepares students for taking the General Educational Development test. Courses are offered daytime and evening at both campuses and also at the high school sites.

For more information, call East Campus, 359-1660, or South Campus, 443-5600, or write Dr. Bonnie Longnion, Dean, Continuing Education, 20000 Kingwood Drive, Kingwood, TX 77339.

Literacy Education for the Elderly Program (LEEP)

A two-year project, funded by United Way and sponsored by the National Council on Aging, the Literacy Education for the Elderly Program identifies workers at specified worksites who are 55 years or older and are illiterate or functionally illiterate. These people then enter into a one-on-one tutoring situation or are encouraged to participate in one of the literacy programs available at local community colleges. Literate workers at these job sites are also encouraged to become certified tutors so they may assist in the efforts to help the workers gain literacy.

For more information, contact Kenneth Trent, 659-1800, 2525 San Jacinto, Houston, TX 77002.

COMMUNITY SERVICE ORGANIZATIONS

American Jewish Committee Houston Chapter
3930 Kirby Dr.
Houston, TX 77098

American Red Cross
2700 Southwest Frwy.
Houston, TX 77098

Big Brothers and Sisters of Houston
3939 Essex
Houston, TX 77027

Catholic Charities and Refugee Resettlement
3520 Montrose
Houston, TX 77006

Christian Rescue Mission
3228 Hadley
Houston, TX 77004

Community Associations Institute
10700 Richmond Ave.
Houston, TX 77042

Gulf Coast Community Services Association
6300 Bowling Green
Houston, TX 77021

Harris County Social Services Department
1225 Elder
Houston, TX 77007

Houston Area Urban League
4704 Dowling
Houston, TX 77004

Houston Human Resources Department
806 Main
Houston, TX 77002

Houston Metropolitan Ministries
3217 Montrose
Houston, TX 77006

Issues, Research, and Educational Foundation
2211 Norfolk
Houston, TX 77098

Julia C. Hester House
2020 Solo
Houston, TX 77020

Latino Learning Center
3522 Polk
Houston, TX 77003

National Organization for Women
4 1/2 Chelsea Place
Houston, TX 77006

Ripley House Neighborhood Center
4401 Lovejoy
Houston, TX 77003

Texas Rehabilitation Commission
7211 Regency Square Blvd.
Houston, TX 77036

United Way Information and Referral Service
1010 Waugh
Houston, TX 77019

Vocational Guidance Service
2525 San Jacinto
Houston, TX 77002

Volunteer Center
3100 Timmons
Houston, TX 77027

Volunteers of America
4949 West 34th
Houston, TX 77092

Wesley Community Center
1410 Lee
Houston, TX 77009

Women in Action
509 Branard
Houston, TX 77006

Young Men's Christian Association
1600 Louisiana
Houston, TX 77002

Young Women's Christian Association
3621 Willia
Houston, TX 77007

PUBLIC RESOURCES

Public Broadcast System - Channel 8 KUHT
4513 Cullen
Houston, TX 77004

Houston Community College
22 Waugh Drive
Houston, TX 77007

University of Houston (Clear Lake)
2700 Bay Area Blvd.
Houston, TX 77058

Houston Independent School District
3730 Richmond
Houston, TX 77027

- Guidance Department
- Volunteers in Public Schools
- Instructional Media Services
- Alternative Education
- Research Department
- External Funding
- Instructional Support

Houston Independent School District
Department of Technology
5300 San Felipe
Houston, TX 77056

Houston Public Library
500 McKinney
Houston, TX 77002

Texas Education Agency - Adult and Community Education
201 East 11th Street
Austin, TX 78701

Region IV Education Services
P.O. Box 863
Houston, TX 77004

Houston Chamber of Commerce
1100 Milam
Houston, TX 77002

North Harris County College - Department of Continuing Education
20000 Kingwood Drive
Kingwood, TX 77339

City of Houston - Mayor's Office
901 Bagby
Houston, TX 77002

Texas Employment Commission
2918 San Jacinto
Houston, TX 77004

Association for the Advancement of Mexican Americans
204 Clifton
Houston,TX 77011

State Board of Pardons and Paroles, Central Office
4949 West 34th
Houston, TX 77092

Harris County Adult Probation Department
49 San Jacinto
Houston, TX 77002

PRIVATE RESOURCES

American Telephone and Telegraph
4888 Loop Central
Houston, TX 77081

Fiesta Food Marts
2300 N. Shepherd
Houston, TX 77008

Houston Lighting and Power Company
611 Walker
Houston, TX 77002

Metropolitan Transit Company
5555 Deauville Plaza
Houston, TX 77092

Limbeck Construction Company
1650 Holcombe Blvd.
Houston, TX 77030

Southwestern Bell Company
20E Greenway Plaza
Houston, TX 77046

Delta Sigma Theta Sorority
1407 Pleasantville
Houston, TX 77029

Women's American Organization for Rehabilitation and Training
4740 Ingersoll, Suite 100
Houston, TX 77027

Tenneco Oil Company
Tenneco Building
Houston, TX 77099

Cameron Iron Works, Inc.
13013 Northwest Freeway, Northwest Crossing
Houston, TX 77040

Assault on Illiteracy
P.O.Box 600603
Houston, TX 77260

ORGANIZATIONAL CONTACTS FOR NETWORKING AND LINKAGE

The following organizations are excellent resources for identifying eligible students and for publicizing the adult literacy program:

Youth organizations

Church organizations

Farm organizations

Lions International

Correctional institutions

Private industry councils

Immigration and Naturalization Service

Parent-Teacher Organizations

Senior citizen organizations

Retired teacher groups

County Department of Education

Sororities and fraternities

Local newspaper companies

Department of Human Resources

Ethnic organizations

State Departments of Agriculture and Conservation

Veterans Administration

Vocational Rehabilitation

Organizations for community development

State Parole Commission

Juvenile Probation Department and domestic courts

Multi-purpose service centers

Cities in Schools - (Houston: Community in School)

Philanthropic foundations

Urban League

SCHEDULE B

GUIDELINES FOR IDENTIFYING AND RECRUITING NON-LITERATE, OUT-OF-SCHOOL YOUTH

1. Begin with public school records on student dropouts which indicate poor attendance, lack of achievement, truancy, and socioeconomic deprivation.

2. Work with welfare agencies that provide aid for parents of dependent children. According to reports from these agencies, many of these parents are in need of educational training.

3. Seek the assistance of the Texas Employment Commission for information on applicants with limited educational training.

4. Review U.S. Census data on geographic location, educational level, and sex of citizens with below-level training.

5. Select a screening device (ABE) that identifies the educational levels of all recruits.

6. Identify and work with businesses and industries that have employees and employment opportunities that require low-level skills and educational background.

7. Consult principals and counselors of alternative schools that provide education for at-risk students and their families. A number of the youths come from homes that bear the earmarks of socioeconomic deprivation which many times go hand-in-hand with illiteracy.

8. Utilize the research of local school districts which frequently will identify students with poor achievement, truancy, and records of dropping out of school. A follow-up in such cases usually will reveal an environment of deprivation and illiteracy.

9. Adult learners are frequently more experienced than the adolescent dropouts, and they are normally seeking assistance for specific needs that they possess. Many of these are job-related.

10. Illiterate adult learners are frequently highly sensitive to their handicap, and in the recruitment process, the persons conducting the recruiting interview should be ever mindful of this fact.

11. As for the recruitment process, the following plan of action to get out-of-school youth and adult illiterates in the program is recommended.

    Meet with directors of four programs on literacy and the R.E.A.D. Council to coordinate collaborative effort.

    Develop a one-page description of program outlining benefits of project and coordination with the four current programs.

    Identify companies and organizations interested in supporting the project.

    Organize a bank of speakers to talk with organized groups such as PTA's, PTO's, neighborhood centers, civic clubs, churches, Chambers of Commerce, Houston Economic Development Council, etc.

    Meet with public affairs directors of local TV stations to acquaint them with the project.

    Meet individually with City Council members and Harris County commissioners to inform them of program.

    Develop a logo and slogan for project.

    Develop brochure, bumper stickers, leaflets as appropriate.

    Plan a briefing for area school principals.

    Organize a "kick off" campaign. (The Junior League has offered to sponsor this.)

    Plan an informational media event.

    Utilize HISD Project Fail Safe materials to communicate information about the project to parents.

    Utilize the United Way and the public libraries to distribute information on the program.

    Distribute information in food stamp and utility bill mailings.

    Write letters to area ministers and community leaders asking them to urge potential students to visit the program centers.

    Plan an open house at each center.

12. In recruiting persons for the program, an awareness of the variety of persons who may be interested in the program should be kept in mind:

    (A) Persons who are economically secure, but due to the ills of society, did not learn to read or write. Hence, the benefits to be derived from the program must be kept in the forefront in the recruitment process with these persons.

    (B) Adults who are experiencing under-employment and lack of job promotion due to under-education.

    (C) Potential trainees who are migratory workers, sporadically employed, sometimes under-employed, and experiencing language difficulty.

    (D) The ever-present poor who have not been able to rise above the poverty level because of a history of unemployment and economic deprivation. A major contributing factor to these conditions is the lack of sufficient education to improve their life-style for employment skills.

SCHEDULE C

BASIC SKILLS NEEDED FOR ENTERING THE JOB MARKET

A great number of studies have explored the relationship between job performance and tests of cognitive skills and abilities. In 1971, the United States Army sponsored the FLIT (Functional Literacy) project to develop a literacy reading program to provide a level of functional literacy appropriate to minimal job reading requirements. The results of the training program showed that reading of job materials resulted in larger gains than general reading (Sticht and Mikulecky, 1984). Summaries of more recent studies have indicated clearly that basic cognitive skills and abilities are directly related to job performance (Schmidt, Hunter and Northrop, 1983). A recent study by Kehoe (1983), done for the American Telephone and Telegraph Company, showed that nine out of ten distinct cognitive skills and abilities were found to be related to job proficiency and turnover. These included such educable skills as numerical computation, reading comprehension, vocabulary, attention to detail, and attention-sharing.

With the use of the extensive research base, a panel of public and private employers prepared a report entitled, *High Schools and the Changing Workplace: The Employers' View.* The report gives a list of core competencies required by employers for success in employment. The list is not to be considered exhaustive, but it does illustrate skills and concepts advocated by other groups. These competencies are transferable, essential to upward mobility, and vital to almost every job. The list of core competencies include skills in speaking, reading, writing, computation, coping with social and economic issues, as well as developing personal and interpersonal relationships. Attached is a list of the skills.

LIST OF BASIC SKILLS

Reasoning and Problem Solving

- Identify problems.
- Consider and evaluate possible alternative solutions, weighing their risks and benefits.
- Formulate and reach decisions logically.
- Separate fact from fiction.
- Adjust to unanticipated situations by applying established rules and facts.
- Work out new ways of handling recurring problems.
- Determine what is needed to accomplish work assignments.

Oral Communication

- Communicate in standard English.
- Understand the intent and details of oral communications.
- Understand and give instructions.
- Identify and summarize correctly principal and subsidiary ideas in discussions.
- Obtain, clarify, and verify information through questioning.
- Participate effectively in discussions.

Reading

- Understand the purpose of written material.
- Note details and facts.
- Identify and summarize principal and subsidiary ideas.
- Be aware of inconsistency in written material.
- Verify information and evaluate the worth and objectivity of sources.
- Interpret quantitative information in tables, charts, and graphs.

Writing

- Gather information suitable for the purpose.
- Organize information in a logical and coherent manner.
- Use standard English syntax.
- Apply the rules of correct spelling, punctuation, and capitalization.
- Use reference books such as a dictionary, a thesaurus, and an encyclopedia.
- Write legibly.

Computation

- Add, subtract, multiply, and divide whole numbers, decimals, and fractions accurately.
- Calculate distance, weight, area, volume, and time.
- Convert from one measurement system to another, for example, from English to metric.
- Determine the costs, time, or resources necessary for a task.
- Calculate simple interest.
- Compute costs and make change.
- Understand simple probability and statistics.
- Calculate using information obtained from charts, graphs, and tables.
- Use ratios, proportions, percentages, and algebraic equations with a single unknown.
- Estimate results and judge their accuracy.

Social and Economic Studies

- Understand the history of present-day American society.
- Understand the political, economic, and social systems of the United States and other countries.
- Show an understanding of the fundamentals of economics, including a basic understanding of the roles of money, capital investment, product pricing, cost, profit, productivity, and market forces such as supply and demand.
- Appreciate the roles of industry and labor in creating wealth, maintaining employment, and raising the standard of living.
- Understand the forms and functions of local, state, and federal governments.
- Know the rights and responsibilities of citizens.
- Appreciate civil rights and justice in a free society.

Interpersonal Relationships

- Interact in a socially appropriate manner.
- Demonstrate respect for the opinions, customs, and individual differences of others.
- Appreciate the importance and value of humor.
- Offer and accept criticism constructively.
- Handle conflict maturely.
- Participate in reaching group decisions.

Personal Work Habits and Attitudes

- Develop a realistic positive attitude toward one's self.
- Demonstrate a positive attitude toward work and pride in accomplishment.
- Develop a willingness to learn.
- Practice self-discipline, including regular and punctual attendance and dependability.
- Develop the ability to work with or without supervision.
- Practice appropriate dressing and grooming.
- Develop an understanding of the need for organization, supervision, rules, policies, and procedures.
- Practice freedom from substance abuse.
- Practice appropriate personal hygiene.

REFERENCES

High Schools and the Changing Workplace: The Employers' View. Report of the Panel on Secondary School Education for the Changing Workplace. Washington, D.C.: National Academy Press, 1984.

Kehoe, J.F. *The Validity Generalization of Telephone Ability Battery Tests*. New York: American Telephone and Telegraph Company, Employment Systems, 1983.

Schmidt, F.L., Hunter, J.E., and Northrop, L.C. *Cognitive skill correlates of success in the world of work for noncollege graduates*. October, 1983.

Schmidt, F.L. and Hunter, J.E. Employment testing: Old theories and new research findings. *American Psychologist*, 1981, *36* (10), 1128-1137.

Sticht, T.G. and Mikulecky, L. *Job-Related Basic Skills: Cases and Conclusions*. ERIC Clearing House on Adult, Career, and Vocational Education, Ohio State University, 1984.

SCHEDULE D

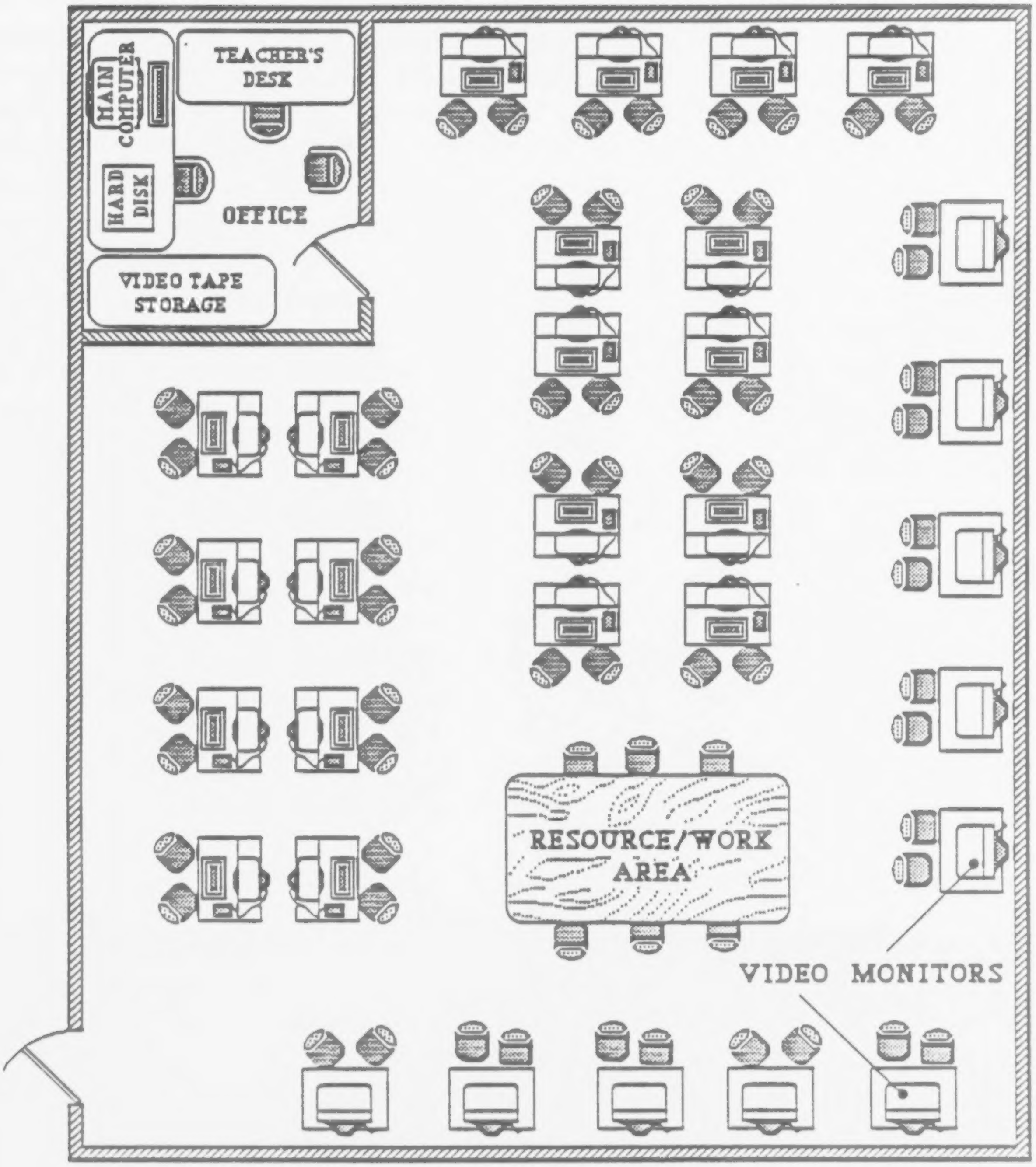
ROOM DESIGNS FOR ADULT LITERACY CENTER AND SATELLITE CENTER

Sample room configurations are included for the Technology Literacy Centers and the Satellite Centers.

The Technology Literacy Centers will have two rooms--an Adult Literacy Laboratory and an Adult Literacy Study Center.

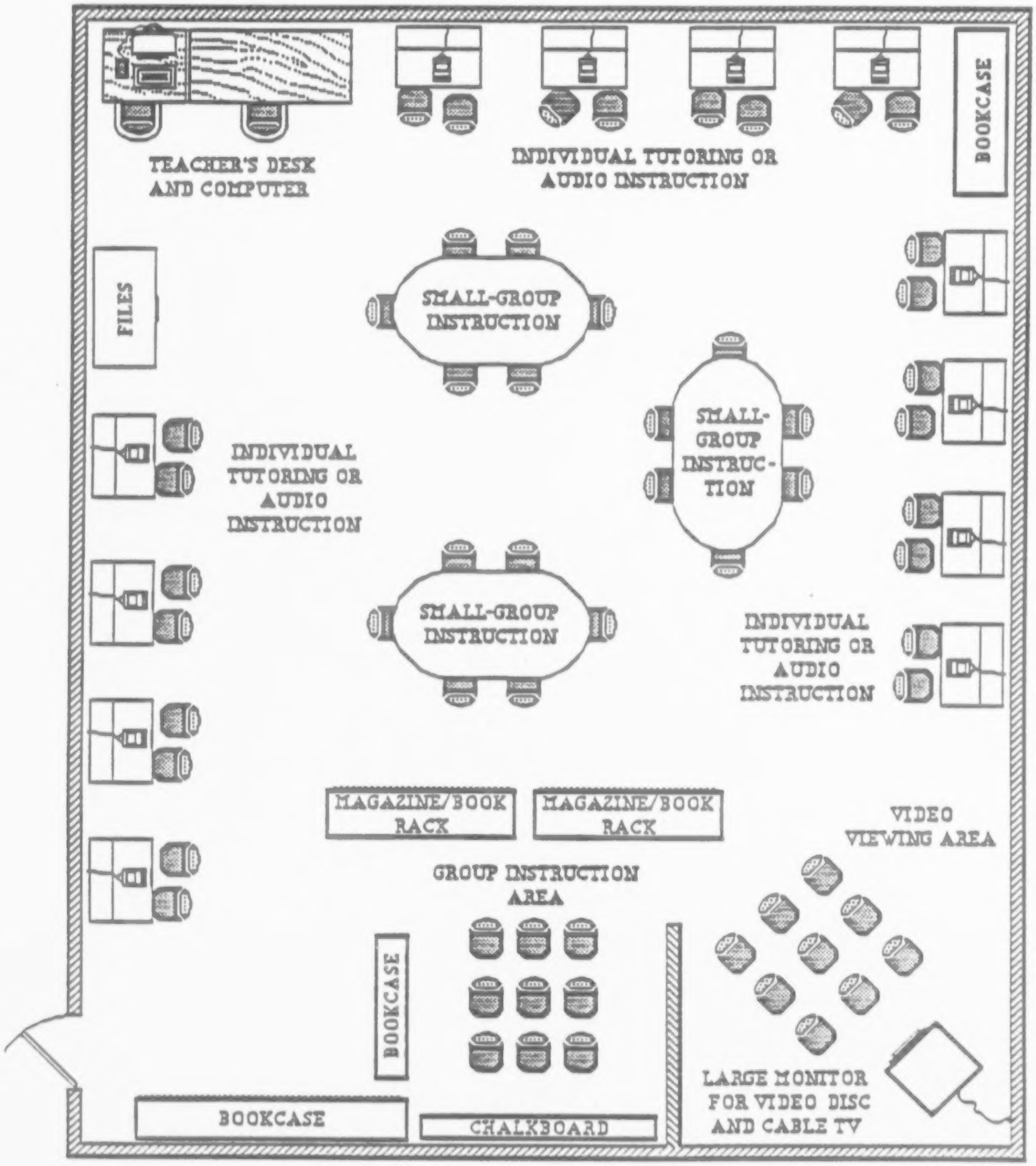
The smaller Satellite Centers will use only a small room or a portion of a room that is used for other purposes.

ADULT LITERACY LAB

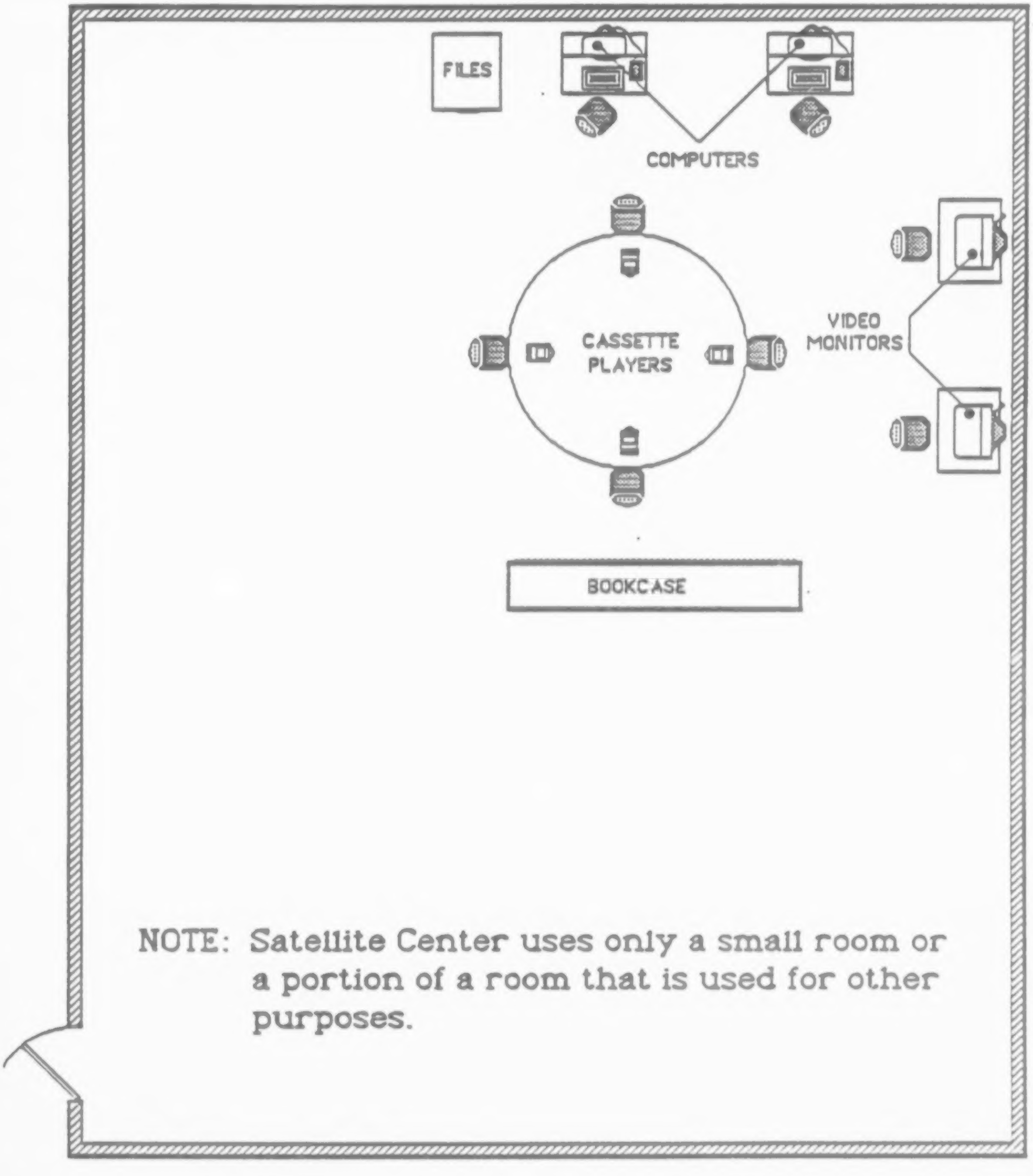

TEACHER'S DESK
MAIN COMPUTER
HARD DISK
OFFICE
VIDEO TAPE STORAGE
RESOURCE/WORK AREA
VIDEO MONITORS

14AS61

ADULT LITERACY STUDY CENTER


TEACHER'S DESK AND COMPUTER
INDIVIDUAL TUTORING OR AUDIO INSTRUCTION
BOOKCASE
FILES
SMALL-GROUP INSTRUCTION
SMALL-GROUP INSTRUCTION
SMALL-GROUP INSTRUCTION
INDIVIDUAL TUTORING OR AUDIO INSTRUCTION
INDIVIDUAL TUTORING OR AUDIO INSTRUCTION
MAGAZINE/BOOK RACK
MAGAZINE/BOOK RACK
VIDEO VIEWING AREA
GROUP INSTRUCTION AREA
BOOKCASE
BOOKCASE
CHALKBOARD
LARGE MONITOR FOR VIDEO DISC AND CABLE TV

ADULT LITERACY SATELLITE CENTER


FILES
COMPUTERS
CASSETTE PLAYERS
VIDEO MONITORS
BOOKCASE

NOTE: Satellite Center uses only a small room or a portion of a room that is used for other purposes.

SCHEDULE E

LITERACY RESOURCE LIST - VIDEOTAPES

adapted from LITERACY VIDEO RESOURCE GUIDE
WQED/Pittsburgh, 1985 - See Appendix II

TITLE: ABC AFTERSCHOOL SPECIAL: "THE HERO WHO CAN'T READ"

PRODUCER:	High Tide Productions/MTI Teleprograms
DISTRIBUTOR:	Learning Corp. of America, 108 Wilmont Road Deerfield, IL 60015 - 800/323-5343

NO./LENGTH OF PROGRAMS: One/45-minute program
COST - Purchase: VHS 1/2" AND 3/4" - $415, 16 mm - $520
Rent: $75/3 days (VHS, 3/4" or 16mm)

DESCRIPTION: Originally broadcast as an ABC Afterschool Special, this program tells the story of a talented and popular high school basketball star who wants to become a professional athlete, but who cannot read. This engaging and motivational story appeals to both adults and teenagers and gives viewers a glimpse at the personal side of illiteracy and the limitations it places on the individual.

TITLE: AMERICAN TICKET

PRODUCER:	KCET/Los Angeles
DISTRIBUTOR:	KCET/Los Angeles, 4401 Sunset Blvd., Los Angeles, CA 90027 213/666-6500

NO./LENGTH OF PROGRAMS: Twenty-six/1-hour programs
COST - Purchase: For more information contact:
Bonnie Oliver, KCET/Los Angeles - 213/666-6500

DESCRIPTION: A 26-part series of one-hour programs to teach basic literacy and computation skills to adults reading at the 5th to 8th grade level, also presents basic life coping skills, and suggestions for developing employment and job advancement skills. The series is targeted to individuals with limited English knowledge, school dropouts and anyone 15 years old and above who seek to develop basic communications skills and literacy in American English.

TITLE: COALITION FOR LITERACY PUBLIC SERVICE ANNOUNCEMENTS

PRODUCER: Benton and Bowles, Inc. for the Ad Council
DISTRIBUTOR: Coalition for Literacy c/o 330 Mumford Hall
1301 W. Gregory Drive, Urbana, IL 61801 - 217/333-1132

NO./LENGTH OF PROGRAMS: A series of 10-, 30- and 60-second spots
COST - Purchase: For information contact:
Kathy McGrain, Benton and Bowles, Inc., 212/758-6200

DESCRIPTION: A series of three sets of public service announcements designed to recruit potential tutors and to encourage illiterate adults to learn to read through their local literacy programs. Can serve as a model for locally produced public service announcements.

TITLE: COLORSOUNDS

PRODUCER: Dr. Michael Bell/Southern Educational Community Association
DISTRIBUTOR: Southern Educational Community Association
P.O. Box 3771, Austin, TX 78764
512/442-6695

NO./LENGTH OF PROGRAMS: A new series of 15- and 30-minute videos is produced every two weeks.
COST - Purchase/Rent: N/A (Schools can tape videos off PBS station broadcasts.) For information contact: Dr. Michael Bell, Colorsounds, 512/442-6695.

DESCRIPTION: A series of music videos, closed-captioned to assist students in learning to read. is suitable for children and teenagers. Colorsounds videos carry color-coded lyrics on the screen so students can sing along while practicing points of grammar and diction at the same time. Colorsounds videos are accompanied by a monthly newsletter which contains song lyrics, lists of words and word games based on song lyrics, and special interest stories about artists appearing in the videos.

TITLE: EARL'S PLACE

PRODUCER: WXXI/Rochester
DISTRIBUTOR: WXXI/Rochester, P.O. Box 21
280 State Street, Rochester, NY 14601
716/325-7500

NO./LENGTH OF PROGRAMS: One/30-minute program
COST - Purchase: Negotiable

DESCRIPTION: A 30-minute pilot program designed as an "information/education" sitcom for students of English as a second language. The cast of characters are a family who run Earl's Bar and Grill. The pilot features Earl's customers who are new Asian immigrants. Through Earl's customers, the program presents fairly basic but specific lessons to bring new, non-English speaking immigrants up to everyday reading and writing skill levels.

TITLE: ON THE MOVE

PRODUCER: The British Broadcasting Company
DISTRIBUTOR: Films, Inc., PMI - 800/323-4222, Ext. 43

NO./LENGTH OF PROGRAMS: Sixty/5-minute segments
COST - Purchase: For more information contact Distributor.

DESCRIPTION: A series of programs originally broadcast on British prime-time television, targeted to the hard-to-reach adult illiterate hidden within the general viewing public. The programs were designed to be entertaining to all viewers while imparting vocabulary and basic skills to the viewers.

TITLE: READING EFFICIENCY

PRODUCER: Time/Life Video
DISTRIBUTOR: Time/Life Video, 1271 Avenue of the Americas
New York, NY 10020
212/484-1926

NO./LENGTH OF PROGRAMS: Twelve/30-minute program
COST - Purchase: $2500 - series (1/2" and 3/4")
Rent: $1250 per month (1/2" and 3/4")

DESCRIPTION: A training course designed to improve reading and job skills, featuring Bill Cosby. The series is targeted to adults reading at the 6th-grade level. The tapes are highly motivational in nature and are accompanied by a Teacher's Guide and two student workbooks. The course is intended to help adults increase reading and comprehension skills, increase their on-the-job productivity, and recognize how reading skills can improve job performance.

TITLE: THE DOUBLE NEGATIVE LESSON

PRODUCER: Satellite Academy Video Center (an alternative high school program), New York City
DISTRIBUTOR: Satellite Academy Video Center, 87 Lafayette Street
New York, NY 10013 - 212/966-4510

NO./LENGTH OF PROGRAMS: One/10-minute program
COST - Purchase: N/A; Rent: $30 (3/4")

DESCRIPTION: A ten-minute award-winning videotape which uses an imaginative story to present a common grammatical error - the double negative - to the viewer. The film features man-in-the-street interviews to show the prevalence of the use of the double negative, and a "rap" song which helps teach the grammatically correct way to employ the negative form. The clever and amusing story makes this tape suitable for adults as well. "The Double Negative Lesson" provides a good example of how students can get involved in the teaching process themselves and how groups can make their own instructional videos on a small budget.

ANOTHER PAGE

PRODUCER: Kentucky Educational Television
DISTRIBUTOR: Cambridge Book Company, 888 Seventh Avenue, New York, NY
(800) 221-4764

NO./LENGTH OF PROGRAMS: 14/30 minutes
COST: Purchase: $3300; Rent: N/A

DESCRIPTION: **Another Page** is a reading comprehension series with programs on general, practical and prose literature. Each program includes a soap opera portion and a newscast portion, which introduce particular reading comprehension skills as well as detailing some coping skills. Accompanying videotexts develop and reinforce the reading comprehension skills introduced in the videotapes. The programs in this series are primarily motivational with most of the actual reading comprehension instruction laid out in the excellent videotexts.

TITLE: BRANCHES OF GOVERNMENT

DISTRIBUTOR: National Geographic Society
Educational Services Department 83
Washington, DC 20036
(301) 921-1330

NO./LENGTH OF PROGRAMS: 3/22 minutes
COST: Purchase - Series, $891 or $330 each
Rent - Available from: Karol Media, 22 Riverside Drive, Wayne, NJ 07470
(201) 628-9111

DESCRIPTION: **Branches of Government** introduces viewers to the inner workings of our government. By examining community level activities affected by the three branches, the viewer readily sees how our lives are affected. Excellent photography and description of the inner workings of government would appeal widely to an adult audience. Fast-paced, but useful for citizenship audiences being introduced to the U.S. government.

TITLE: COME ALIVE

PRODUCER: University of Akron, Akron, OH 44325
DISTRIBUTOR: Great Plains National Instructional Television Library
University of Nebraska, Box 80669, Lincoln, NE 68501

NO./LENGTH OF PROGRAMS: 6/27 minutes
COST: Purchase - $180; Rent - $30

DESCRIPTION: **Come Alive** is a collection of six programs on career and life planning. Its premise is that such planning is a process of self-study, career awareness and decision making. Each program addresses itself to a different aspect of career planning. The series is designed so that the programs can be used individually, in any sequence, with or without the accompanying workbook. The workbook utilizes a series of action-oriented step-by-step exercises designed to help a job-seeker learn to find out what he wants, to develop a plan of action, to set goals and move toward them, to discover his unique talents and to set up an effective job campaign. A highly motivating, relevant, and interesting series, **Come Alive,** focuses on self-study and decision-making skills. It is an excellent way to introduce a workshop on employability.

TITLE: CONSUMER COMPLAINTS: THE RIGHT WAY

PRODUCER: Alfred Higgins Productions, Inc.
DISTRIBUTOR: Alfred Higgins Productions, Inc.
9100 Sunset Boulevard, Los Angeles, CA 90069
(213) 272-6500

NO./LENGTH OF PROGRAM: 1/11 minutes
COST: Purchase: $215; Rent: $22

DESCRIPTION: This program details the most effective way of dealing with legitimate consumer complaints. The information is presented in a well-organized, sequential manner. The narrator speaks in a slow, concise manner and is easily understood. Also, the program utilizes adults, teenagers, and children to simulate consumers making complaints. Humor is interspersed throughout the program making it entertaining as well as informative. It is recommended for ABE, GED, and APL population.

TITLE: EMERGENCY FIRST AID

PRODUCER: Journal Films, Inc.
DISTRIBUTOR: Journal Films, Inc., 930 Pitner Avenue, Evanston, IL 60202
(800) 323-5448

NO./LENGTH OF PROGRAMS: 6/12-17 minutes
COST: Purchase - $1,475 for series, $235 each
Rent - $150 for series

DESCRIPTION: This six-part series provides a concise package for Adult Performance Level instruction in Emergency First Aid. Programs move at a good pace, and though the vocabulary level is most appropriate to 5th grade and above, the content would be helpful to a lower functioning audience. The actors bring a fresh, human approach to the on-site depiction, and the emergency procedures are demonstrated with clarity.

TITLE: JOB SEEKING

DISTRIBUTOR: Great Plains National Instructional Television Library
University of Nebraska, Box 80669, Lincoln, NE 68501

NO./LENGTH OF PROGRAM: 6/15 minutes
COST: Purchase - $130 each; Rent - $25 each

DESCRIPTION: This series deals with the "tools" of getting a job (how to dress for an interview, where to look for a job, how to act in an interview, etc.). The programs present the viewpoint of an experienced personnel officer and attempt to show the view from "the other side of the desk." This series presents relevant information on getting a job in a thorough, clear and concise manner. For example, when explaining how to dress for an interview, the viewer is given four choices. The correct choice is given with an explanation of why it was chosen. However, time is also taken to explain why the other three possibilities were inappropriate. The narrator is pleasant and talks slowly and clearly. The programs are well organized and are highly recommended for ABE, GED and APL populations.

TITLE: JUST AROUND THE CORNER

PRODUCER: Mississippi Authority for Educational Television
DISTRIBUTOR: Cambridge Book Company
888 Seventh Avenue, New York, NY 10106
(800) 221-4764

NO./LENGTH OF PROGRAMS: 45/15 minutes
COST: Purchase - $5,950 for series; Rent - $275 per tape

DESCRIPTION: This four-part survival skill series was designed specifically to meet the Adult Performance Level (APL) objectives. The programs are soap opera-type dramas featuring two couples who in each episode have a new problem that they must solve. The true-to-life situations in the dramatizations hold the viewer's interest and attention. The problems presented and the errors made by the couples are similar to those situations others encounter in their daily lives. Each series is accompanied by a student softcover text, which is divided into "before viewing" and "after viewing" parts for each program. Perhaps the most appropriate utilization of this series would be as a springboard to further teacher-directed sessions or use of the more detailed material in the excellent texts.

TITLE: KET/CAMBRIDGE GED PROGRAM

PRODUCER: Kentucky Educational Television
DISTRIBUTOR: Cambridge Book Company, 888 Seventh Avenue, New York, NY
(800) 221-4764

NO./LENGTH OF PROGRAMS: 34/30 minutes
COST: Purchase - $4,500 for series; Rent - N/A

DESCRIPTION: The Kentucky GED series instructs adults in those subject areas necessary to pass the GED test. The English and reading sections are presented using short comical vignettes. The math section portrays a husband and wife working at home on their GED. The accompanying three workbooks are keyed to each videotape lesson. This series is the only one of the three GED series currently available which attempts to deliver its material in an entertaining and interesting manner rather than by a straight lecture method. Though the programs are recommended for a 9-12 level audience, they would be suitable also for some 7-8 level students. The videotext format is very helpful. This series is not as useful if the students do not have access to the videotexts or at least to classroom instruction.

TITLE: MATH LAB

PRODUCER: ITV Division of Instruction, Washington County, MD
DISTRIBUTOR: International Telecommunication Services, Inc.
2492 Freetown Drive, Reston, VA 22091
(703) 476-4468

NO./LENGTH OF PROGRAMS: 75/15 minutes
COST: Purchase - $150 per title; $125 per title in units of 15 programs

DESCRIPTION: **Math Lab** is designed to provide math lessons appropriate for use at the instructional levels 4-8. There are fifteen lessons per level. This is an excellent mathematics series for ABE and GED populations. The narrator speaks in a slow, clear and concise manner. Explanations are thorough, and graphic presentations are well-coordinated with verbal instructions.

TITLE: THE METRIC FILM

PRODUCER:	American Educational Films
DISTRIBUTOR:	American Educational Films 3807 Dickerson Road, P.O. Box 8188, Nashville, TE 37207 (615) 868-2040

NO./LENGTH OF PROGRAMS: 1/13 minutes
COST: Purchase - $305; Rent - $35

DESCRIPTION: **The Metric Film**, approved for accuracy by the National Bureau of Standards, gives the history of metrics and the background of why the system is both logical and productive. The objective of the film is to prepare the American population for the metric system and to evaluate its worth for Americans' personal needs as well as the country's needs. The film is an excellent way to introduce metrics. Its humorous utilization of animation tends to relax its audience and to make its point. Variety is provided by frequent switches from animation to still pictures to real life simulations. The film was not considered a good teaching tool by the evaluators because the pace is much too rapid for an audience to digest the content. However, it gives a well-organized rationale for why Americans should learn to use the metric system.

TITLE: METRICS

PRODUCER:	Metricraft for Benchmark Films
DISTRIBUTOR:	Benchmark Films, Inc. 145 Scarborough Road Briarcliff Manor, NY 10510 (914) 762-3838

NO./LENGTH OF PROGRAMS: 3/9-12 minutes
COST: Purchase - $560 for series; Rent - $60 for series, $20 each

DESCRIPTION: **Metrics** is a series developed to teach the new metric system for the United States as approved by the U.S. National Bureau of Standards and is designed for upper elementary, junior high and high school students. It can also be used as an introduction to in-service training for teachers who are starting metric system instruction. This series is a very good tool for teaching metrics. The pace of the narration is slow enough for the viewer to digest the information given. Excellent use is made of comparisons to give accurate ideas of various metric quantities.

TITLE: NUTRITION

PRODUCER:	Journal Films, Inc.
DISTRIBUTOR:	Journal Films, Inc., 930 Pitner Avenue, Evanston, IL 60202 (800) 323-5448

NO./LENGTH OF PROGRAMS: 4/ 11-18 minutes
COST: Purchase - $1,075 for series; Rent - $110 for series

DESCRIPTION: The **Nutrition** series presents basic nutrition and food preparation information. The programs are presented in a lively, informative manner. The content would appeal to a wide audience with appropriate vocabulary level for ABE/GED students.

TITLE: PARENTING CONCERNS

PRODUCER: Cine-Image Films, Ltd.
DISTRIBUTOR: Perennial Education, Inc.
477 Roger Williams, P.O. Box 855, Ravinia,
Highland Park, IL 60035

NO./LENGTH OF PROGRAMS: 2/21 minutes
COST: Purchase - $385 each; Rent - $39 each

DESCRIPTION: **Parenting Concerns** provides a comprehensive body of knowledge about the crucial five years in a child's development. **The First Two Years** addresses itself to prospective and veteran parents. **Preparing Your Child for Kindergarten** describes developmental tasks, characteristics, and problems of each age group from two to five years of age. This series is a well-organized presentation on the child's first five years of development. It is appropriate for the GED level of instruction.

TITLE: PREPARING FOR THE HIGH SCHOOL EQUIVALENCY EXAMINATION

PRODUCER: EDEX Corporation
DISTRIBUTOR: Comex System, Inc.
The Mill Cottage, Mendham, NJ 07945
(201) 234-1616

NO./LENGTH OF PROGRAMS: 12/45 minutes
COST: Purchase - $1800 for series or $150 each; Rent - N/A

DESCRIPTION: This lecture-type series reviews the basic skills needed to pass the GED. An accompanying text is referred to occasionally in the series. Basic math topics are covered in the math component and language brush-up comprises the English portion. These tapes use a simple lecture style to present material for GED review, including examples of each concept covered. Reading comprehension is clearly and effectively reviewed in the special reading-related subject areas and in the general approach to the series. The pace is fairly rapid, with little repetition and review. This series is recommended for the above-average student.

TITLE: THE READING ZONE

PRODUCER: Central Susquehanna Intermediate Unit
DISTRIBUTOR: Section 310 Project

NO./LENGTH OF PROGRAMS: 12/11:30 - 22:30 minutes
COST: Not Listed

DESCRIPTION: **The Reading Zone** is designed to prepare students to take the reading section of the GED test. Its emphasis is in developing word attack skills, extending comprehension skills, increasing reading speed along with comprehension, and developing the ability to read graphs, cartoons and charts. The format for this series varies from program to program. The targeted reading objectives are valid and excellent for a student pursuing his GED. The narrator's pace is slow and concise. The programs show great potential; however, errors in spelling and punctuation, poorly done illustrations and over use of the lecture-format detract from its strong points.

TITLE: WE THE PEOPLE....READ

PRODUCER: Learning Achievement Corporation
DISTRIBUTOR: Cambridge Book Company, 888 Seventh Avenue, New York, NY 10106
(800) 221-4764

NO./LENGTH OF PROGRAMS: 20/30 minutes
COST: Purchase - $3590; Rent - N/A

DESCRIPTION: **We the People...Read** series consists of "variety show skits" akin to an adult Electric Company. Each program has specific segments for (1) those adult students learning letters, (2) those learning words and (3) those learning sentences. The programs incorporate APL skills in areas such as nutrition, shopping and job search. There is an 8-12 page newspaper accompanying each show. The programs are entertaining, motivating, and offer another mode of teaching at this low level. The programs are also worthwhile as a review of previously covered materials or as a preview of new material soon to be covered. The excellent newspapers are interesting and give varied practice in decoding and comprehension skills using consumer contexts. However, the progression of phonics skills from one program to the next is paced much too fast, and it is somewhat confusing to have students at all levels watch an entire program.

TITLE: ALCOHOL ABUSE

PRODUCER: Journal Films, Inc.
DISTRIBUTOR: Journal Films, Inc., 930 Pitner Avenue, Evanston, IL 60202
(800) 323-5448

NO./LENGTH OF PROGRAMS: 3/10-14 minutes
COST: Purchase - $600 for series; Rent - $60 for series

DESCRIPTION: This series examines the potential abuses of alcohol and provides the audience with an understanding of resulting health hazards. The series is effective with ABE, GED and APL populations.

TITLE: CRISIS COUNSELOR

PRODUCER: American Educational Films
DISTRIBUTOR: American Educational Films, 3807 Dickerson Road
P.O. Box 8188, Nashville, TN 37207

NO./LENGTH OF PROGRAMS: 85/23 minutes
COST: Purchase - $495 each; Rent - $50 each

DESCRIPTION: This 85-part series on interpersonal problems offers counseling on alcohol abuse and drug addiction as well as covering many other social problems. This an excellent series to use to explore interpersonal relationships.

TITLE: DRUGS: DON'T BE FOOLED

PRODUCER: American Educational Films
DISTRIBUTOR: American Educational Films, 3807 Dickerson Road
P.O. Box 8188, Nashville, TN 37207

NO./LENGTH OF PROGRAMS: 1/16 minutes
COST: Purchase - $495; Rent - $50

DESCRIPTION: This videotape looks closely at drug and alcohol abuse without overly dramatizing. It fully explains what drugs and alcohol do to us, physically as well as mentally. It is well-organized, motivating, informative and appeals to teenagers since the actors are young people.

TITLE: THE SHAME OF A NATION

DISTRIBUTOR: King Arthur Productions, Inc.
Arthur Barron
1278 Glenneyre , Suite 1054
Laguna Beach, CA 92651

DESCRIPTION: The film focuses on three adults' successful efforts at overcoming their illiteracy.

TITLE: WHAT IF YOU CAN'T READ?

DISTRIBUTOR: Dorothy B. Tod Films
20 Bailey Avenue
Montpelier, VT 05602

DESCRIPTION: A 1978 28-minute documentary.

LITERACY RESOURCE LIST - PRINTED MATERIALS

TITLE: CHALLENGER ADULT READING SERIES

AUTHOR:	Corea Murphy
PUBLISHER:	New Reader's Press

DESCRIPTION: A five book program of reading, writing and reasoning skills designed for adult and adolescent students. The series is targeted toward students who are enrolled in ABE, job training, or remedial reading programs in high schools. Each book is based on areas of phonics, word analysis, reading comprehension and vocabulary skills.

TITLE: ADULT READING: COMPREHENSION

AUTHOR:	Dale R. Jordan, Alan B. Knox and Violet M. Malone
PUBLISHER:	Scott, Foresman and Company, Lifelong Learning Division, Glenview, IL

DESCRIPTION: A series of reading books in four topic strands - People, Messages, Cultures, and Coping. A reading level of second grade is needed to begin the program. Each level introduces and teaches one major skill. This is designed specifically for ABE students who have experienced problems in areas such as orientation to failure, high academic frustration, delayed maturity, or tone deafness and difficulty following oral sequence.

TITLE: READ ON

AUTHOR:	Ruth Colvin and Jane Root
PUBLISHER:	Literacy Volunteers of America, Inc.

DESCRIPTION: This set of ten reading texts of graded reading ability is designed for use with the Literacy Volunteers of America program. No previous reading experience is necessary to begin the series, and it covers a wide range of tasks including word recognition skills, comprehension and thinking skills and writing skills. A teacher's manual assists the volunteer teacher in the task of guiding the student toward literacy.

TITLE: BUILDING REAL LIFE ENGLISH SKILLS

AUTHOR:	Carolyn Morton Starkey and Norgina Wright Penn
PUBLISHER:	National Textbook Company, Lincolnwood, Illinois

DESCRIPTION: This book is divided into eleven areas of real life situations which will help students gain a knowledge of such topics as Understanding Legal Documents and Filling Out Forms and Applications. It is designed to help students gain knowledge and skill to function successfully in today's society. Using real examples the student can practice hundreds of different skill building techniques that are very relevant to everyday situations. Although essentially targeted for high school students, the book has a controlled vocabulary and could be used with success for more advanced ABE students.

TITLE: LAUBACH WAY TO READING

AUTHOR:	Frank Laubach, Elizabeth Kirk and Robert Laubach
PUBLISHER:	New Reader's Press, Publishing Division of Laubach Literacy International Syracuse, New York

DESCRIPTION: A reading and writing program for adults this series has five skill books and correlated readers. It incorporates a very systematic development of skills with vocabulary, phonics and structural analysis linked to each story. Because the early selections rely heavily on phonic repetition, they lack any literary depth. However, this does seem to be the most comprehensive series on the market for the adult student and individual instruction can be arranged according to the learner's schedule and is not confined to classroom study.

TITLE: REGENTS ILLUSTRATED CLASSICS

AUTHOR:	Elaine Kim
PUBLISHER:	Regents Publishing Company

DESCRIPTION: This series provides highly motivational material for beginning and intermediate ESL students and for native speakers of English who want to develop basic reading skills. Each classic is presented in an illustrated format which aids comprehension and stimulates the desire to read. There are four levels all based on limited vocabulary and structure lists. Titles include *Frankenstein*, *Treasure Island*, *The Last of the Mohicans*, and *The Count of Monte Cristo*. Also included is a section that gives information about the author and the original classic.

LITERACY RESOURCE LIST - COMPUTER SOFTWARE

TITLE: CORE READING AND VOCABULARY DEVELOPMENT

PUBLISHER: Educational Activities Inc.

AUTHOR: Priscilla Hamilton and Barbara Hombs

COST: $599

DESCRIPTION: This software program consists of 18 diskettes targeted for the older reader and the ESL student. It is designed for individual and independent teaching under tutorial guidance from the computer. Integrated reading and writing activities can be selected from the menu by the student. Each disk has a range of nine activities and a worksheet that reinforces the skills learned.

TITLE: ALPHABETIZE

PUBLISHER: M.D. Fulber & Associates

COST: $23.85

DESCRIPTION: For grades 9-12, this program is a language arts rote drill. Word lists that appear on the screen are typed in alphabetical order by students. A system for timing and checking is included, and the student's progress can be seen at the end of each section.

TITLE: GAPPER-A LANGUAGE ARTS SYSTEM

PUBLISHER: HRM Software

COST: $95

DESCRIPTION: Designed to meet the needs of students in grades 1-12, **Gapper** is a program that can be used as a tutorial for remedial study and for special education. This comprehensive system covers language arts instruction for any grade level. Included in the package are: *The Game Program* , interactive learning environment for encouraging effective reading strategies; *Gapper Writer* , easy-to-use way of preparing texts for the Game Program; and *Game Command* , provides score reports and adjusts difficulty level.

TITLE: COMPREHENSION POWER

PUBLISHER: Milliken

COST: $425

DESCRIPTION: This series of disks relates to students at grade levels 4-12. There are three main levels and each has twelve lessons. Main idea study, comprehension, and vocabulary drills are included at a low vocabulary level which builds around 25 reading skills. Within the package is a management system.

TITLE: THE GAME SHOW

PUBLISHER: Advanced Ideas

COST: $34.95

DESCRIPTION: **The Game Show** can be used for main curriculum studies but has several advantages for remedial students. Based on a popular quiz show format, students play alone or with the computer to develop vocabulary skills. There are 15 lessons which can be expanded by mini-authoring that allows parents/children to include their own lessons. Information gathering skills are a major plus in this program.

TITLE: CREATE: SPELL-IT

PUBLISHER: Hartley

COST: $29.95

DESCRIPTION: Aimed at students K-7, this program gives practice in spelling. The teacher pre-tapes the word lists and plays them to the student who types in the words. The computer feeds back the student's score. At any one time, the program can cope with 40 lists of 20 words.

TITLE: ALL ABOUT WHAT YOU READ

PUBLISHER: Milton Bradley

COST: $39.95

DESCRIPTION: Suitable for grade level 4-8, this program develops comprehension skills. Material included covers main idea, titles, evaluation of content, and selecting details. With the diskette is a student handbook.

TITLE: READING COMPREHENSION

PUBLISHER: Milton Bradley

COST: $59 a disk (five disks in series)

DESCRIPTION: Although this series was developed mainly for classroom use, it could be a valuable tool for the adult learner. Each diskette has a supplementary workbook and learning guide. Stories are illustrated with animated graphics. The skills practiced are recalling details, identifying main idea, drawing conclusions, and sequencing.

TITLE: WORD-A-TACH

PUBLISHER: Hartley

COST: $29.95

DESCRIPTION: Designed at a 1-4 grade reading level. The computer becomes a tachistoscope and teaches word recognition. A useful tool for remedial and special education students, the program keeps a record of the score while the student reads the large-print words flashed on the screen. A teacher's guide is included in the package.

TITLE: CROSSWORD MAGIC

PUBLISHER: Mindscape

COST: $49.95

DESCRIPTION: The student feeds a list of words into the computer and creates definitions and clues. The resulting puzzles can be viewed on the screen or printed out. It is suitable for use with adolescent and adult learners.

TITLE: TIC-TAC-SHOW

PUBLISHER: Advanced Ideas

COST: $34.95 (six additional data disks available at $19.95 each)

DESCRIPTION: A quiz show game illustrated with animated graphics and sound effects, this program is designed to introduce facts and concepts of the world around us. A mini-authoring system allows the teacher to add more information. Designed for grades K-12, this program can be used as a remedial tool at all levels.

TITLE: DAILY LIVING SKILLS

PUBLISHER: Encyclopaedia Britannica Educational Corporation

COST: $59 per package

DESCRIPTION: **Daily Living Skills** is a series of three disks aimed to provide the functional literacy skills that are needed in society. The main topic areas are Prescription Medicine and Product Labels, Classified Ads and Telephone Directories, and Job Applications and Pay Checks. Each disk has two sections - a passage explained with a basic animated sequence and a set of application questions to test the mastery of the passage. Although the method of presentation is repetitious, the material taught is very relevant to represent the needs required for daily living skills.

TITLE: OUR WILD AND CRAZY WORLD

PUBLISHER: Educational Activities, Inc.

COST: $49.95-$59.95 per package or $95-$99.95 per set

DESCRIPTION: A two-part program to help teach students the skills of literal comprehension. Short, humorous passages from newspaper articles provide the content which is then tested by the cloze method. The reading level is grade 4-5, and the program would be suitable for use with adults. Four tapes (or one disk) are included in each package.

TITLE: COMPREHENSIVE COMPETENCIES PROGRAM (CCP)

PUBLISHER: Remediation and Training Institute

COST: See Appendix II

DESCRIPTION: The CCP covers an array of basic skills including elementary reading and arithmetic, job getting and holding, consumer economics, citizenship, health, and community resources. Diagnostic testing and mastery testing are a major part of the program. Each level of difficulty incorporates different subject strands. In all, it is a very useful program for adult learners.

TITLE: WORD ATTACK

PUBLISHER: Davidson

AUTHOR: Janice G. Davidson and Richard K. Eckert

COST: $49.95 (data disks available at $19.95 each)

DESCRIPTION: **Word Attack** is a four-part vocabulary building program. It enables students to gain a better command of language through teaching words with their meanings and uses. Incorporated are extensive word files and an editor which enables the teacher to enter extra word lists. Various exercises test the mastery of new words.

TITLE: M-SS-NG L-NKS

PUBLISHER: Sunburst Communications Inc.

AUTHOR: Carol Chomsky and Judah L. Schwartz

COST: $49

DESCRIPTION: A language arts program designed to help students of all levels increase comprehension, use context, build vocabulary, and improve spelling. The teacher can use the editor to enter passages necessary for the students and, therefore, tailor the program to the needs of the class. Suitable either for individual or group situations, this program could be used with adult learners.

TITLE: HARMONY

PUBLISHER: Jostens Learning Systems, Inc.

AUTHOR: Produced by the Houston Independent School District

COST: $294 per unit

DESCRIPTION: A courseware series containing 14 instructional units and 23 skill builders suitable for beginning level ESL students. Some of the most distinctive features are the colorful high-resolution graphics and state-of-the-art digital speech. Limited-English-proficient students benefit from the interactive capabilities of this courseware while hearing human speech as a language model. Teacher documentation and student workbooks are included in the package.

TITLE: BASIC SKILLS INSTRUCTION SERIES

PUBLISHER: Control Data Corporation

COST: $49 per program

DESCRIPTION: Several programs suitable for adult learners include grammar, reading, and writing instruction. Students are provided with practice items for the GED examination. This software is only available for the TI 99 4A computer.

TITLE: KEYS TO RESPONSIBLE DRIVING

PUBLISHER: CBS Software

COST: $79.95

DESCRIPTION: Instruction designed to help student drivers become safer drivers. For grades 10-12, the program begins with a pre-test to measure knowledge and to point out misconceptions. Menu-driven driver education sections feature full-color graphic simulations and cover such areas as signs and regulations and expressway driving. A post-test rates performance and pinpoints areas requiring further understanding.

TITLE: THAT'S MY STORY/CREATIVE WRITING

PUBLISHER: Learning Well

COST: $59.95

DESCRIPTION: This program provides motivation and method for practice on writing creatively, whether cooperatively or individually. Its 12 story starters, three each for grades 2, 4, 6, and 8, get student authors writing, and then present them with two story paths from which to choose. Parents or teachers may enter 40 additional story starters. Simple-to-use word processing, editing, and printing options enhance this writing adventure.

TITLE: WRITING WITH A MICRO

PUBLISHER: Sterling Swift Publishing Company

COST: $59.95

DESCRIPTION: This program focuses on three literary forms: cinquain, triolet, and short story. It is designed to help students see the relationships between ideas and written expression.

TITLE: ENGLISH: BASIC MECHANICS I

PUBLISHER: Conduit

COST: $95 per module

DESCRIPTION: These 5 computer-based modules cover the fundamentals of basic sentence structure. The student uses the screen editor, a special feature which allows the student to create and modify sentences while practicing the concepts presented in the modules. Included is a 21-page instructor's guide and the software (4 diskettes, 2 originals and 2 backups).

TITLE: CLOZE-PLUS LEVELS A - H

PUBLISHER: Milliken

COST: $225 per level

DESCRIPTION: Each program develops comprehension skills and vocabulary through structured cloze and context strategies. The program consists of a set on each of the reading levels 3-8.

TITLE: CRITICAL READING

PUBLISHER: Jostens

COST: $160

DESCRIPTION: This package applies the basic rules of logic to the understanding of written material. Skills are developed through instructional design.

TITLE: RIGHT RESUME WRITER II

PUBLISHER:	Career Development Software
COST:	$49

DESCRIPTION: Helps user tailor 4 types of resumes: chronological, skill-oriented, title-oriented, and unique. It includes preformatted inputs in areas such as education, work experience, skills, personal interests and data, selected accomplishments, seminars/workshops/conferences, extracurricular activities, references, and special headings.

TITLE: RIGHT JOB

PUBLISHER:	Sunburst Communications Inc.
COST:	$189

DESCRIPTION: A career development program written for special education students and other non-college-bound students, grades 7-12. Students are prepared for the job search and selection process, while improving computer literacy. This 4-diskette package allows students to explore their interests and skills. A special simulation familiarizes students with the interview process. Students work with a data base of job information to search for jobs that meet their interests.

SCHEDULE F

Schedule F is a list of projects dealing with adult literacy that are highly recommended by the National Diffusion Network. The complete list of projects is listed in Appendix II.

National Diffusion Network Projects

TITLE: An Adult Performance Level Program

PURPOSE: A competency-based system of education that combines the diagnosis, prescription, teaching, evaluation and credentialing of life-coping skills. This project measures the specified minimum competencies an adult must possess. Based on the objective identified in APL research, a complete curriculum applies reading, writing, speaking-listening-viewing, computation, problem-solving, and interpersonal relations skills to the content areas of consumer economics, occupational knowledge, health, community resources, and government and law.

CONTACT: Elaine Shelton, Consultant
2606 Top Cove
Austin, TX 78704
(512) 444-3488

TITLE: The BES Adult Literacy Project

PURPOSE: The BES Adult Literacy Project is a reading program for functionally illiterate adults in the non-reader or beginning reader category. The instructional methods used combine a problem-solving approach with a linguistic analysis of words, sounds, and sentences, and a highly structured sequence of oral and written drills. All instruction is classroom-based.

CONTACT: BES Adult Literacy Project
Bronx Educational Services, Inc.
965 Longwood Avenue
Bronx, NY 10459
(212) 991-7310

TITLE: Project CLASS

PURPOSE: Project CLASS is a series of competency-based modules for teaching survival skills to adults of low-level reading ability. Adult students have difficulty in transferring academic learning from classroom settings to situations encountered outside school. To address this problem, Project CLASS has developed two series of competency-based modules--one for use with teacher directed instruction, and one for independent study. These materials provide instruction in survival skills for adults reading at 0-8 grade level equivalent.

CONTACT: Mary Rich, Director, or Lorraine Ruston, Assistant Director
Clovis Unified School District
914 Fourth Street
Clovis, CA 93612
(209) 299-4367 or 2961

TITLE: Project F.I.S.T. (Functional In-Service Training)

PURPOSE: Project F.I.S.T. has developed a volunteer-based administrative and instructional delivery system aimed at meeting the special needs of low-level adult readers. F.I.S.T. was originally conceived as an integral component of ongoing basic skills programs, providing the intensive one-to-one tutoring and support needed before minimally proficient readers can benefit from regular instruction.

CONTACT: Iris Saltiel, Coordinator, or Pat Morley, Director
Division of Community Education
Middlesex County College
170 French Street
New Brunswick, NJ 08901
(201) 249-7987

TITLE: Jefferson County Adult Reading Program (JCARP)

PURPOSE: JCARP is a program to deliver literacy instruction and life coping skills instruction. After two years of operation, the results showed that students who attended more often showed greater gains. As a result, counseling was inculcated into each of the four components to address the personal and social needs of the students as well as their academic deficiencies. The four components are recruitment, staff training, instruction, and evaluation. Over three years, JCARP participants experienced an attrition rate of 22% compared to 52-80% in comparable programs.

CONTACT: Sharon Darling, Director, or Susan Paul, Disseminator
Adult Education
Capitol Plaza Tower
Frankfort, KY 40601
(502) 564-3921

TITLE: Needs and Objectives for Migrant Advancement and Development (NOMAD)

PURPOSE: NOMAD was designed to meet the special needs of migrant students through individualized instruction. It consists of a school year tutorial program, a summer program, and a family-unit program. The program includes young adults to age 21 and family members of all ages and all abilities. Teachers gave daily instruction in reading, math, and language usage to each student at his or her level of development. The family-unit component is an evening program designed to encourage total family involvement. Instruction took place in a van located at the migrant camps.

CONTACT: John H. Dominguez Jr., Director
Van Buren Intermediate School District
701 South Paw Paw Street
Lawrence, MI 49064
(616) 974-8091, extension 214

TITLE: Individualized Language Arts

PURPOSE: This project combines a language experience approach with techniques derived from modern linguistic theory to enhance skills in written composition. The program was designed for a school setting but has been used in adult education programs. Three times a year, the teacher evaluates writing samples composed by students on self-selected topics. The teacher then is able to assign priorities to each student or to the entire class.

CONTACT: Jeanette Alder, Project Director
Woodrow Wilson School
Hauxhurst Avenue
Weehawken, NJ 07087
(201) 865-1506

SCHEDULE G

MEETING AGENDA

On July 24, 1986, members of the Steering Committee and the Research Department of the Houston Independent School District, met to review the report on The High-Technology Delivery System for Adult Literacy. The modifications suggested at this meeting have been incorporated into the final report.

The agenda for the above meeting and the signatures of those in attendance are included in this schedule.

AGENDA

Planning a Regional High Technology Delivery System Model, 1985-86
(A Report to the Texas Education Agency on Adult Illiteracy)

Thursday, July 24, 1986
8:30 - 9:30 a.m.

Department of Technology
Houston Independent School District

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Presenters:

- Status Report on Project
  Patricia Sturdivant
- Review of Research and Implementation Plan Proposed
  Richard Smith
- Scope of Development Needed
  Mary Henrikson
- Where Do We Go From Here?
  Billy R. Reagan

PLEASE SIGN BELOW TO INDICATE YOUR ATTENDANCE!

NAME	COMPANY
Stephen D. [illegible]	- HISD Research
Dorris Ellis	The Houston Sun
T. W. Hudson	H. J. T. P. C.
[illegible]	Houston Community College System
Esther [illegible]	HISD Research

SCHEDULE H

EVALUATION REPORT

The degree to which the goals of the project were achieved were assessed at the termination of the funding period. The results of this assessment are included in this schedule.

Project Title:

EVALUATION OF SPECIAL PROJECT

IN ADULT EDUCATION

Houston Independent School District

Institution

June 30, 1986

Date

Signature

Objective Number	Objective	Percent of Accomplishment (Check One) As of June 30, 1986						State Reasons That Hindered Accomplishment	State Reasons That Contributed to Accomplishment
		Under 25%	25%-49%	50%-74%	75%-89%	90%-99%	100%		
1	Complete a high school dropout study.					X		The limitations of data made it difficult to generalize concerning the entire population of HISD dropouts. A low response rate to questions reduced the validity of results.	Seven dropout reports on HISD students were completed. Detailed information identifies and classifies dropouts from the 1983 84 school year to the beginning of the 1985 86 school year.
2	Develop a systematic approach and identify: • Available and committed public and private resources • Basic skills needed for entering the job market • Suitable electronic transmission systems • Instructional materials available and compatible with electronic systems					X		Limited commitments from people and organizations were received. There was little input from local employees on the basic skills required.	Valuable lists of public and private resources were compiled for future use. Basic skills list was drawn from research literature. Comprehensive lists of computer software and video materials were available.
3	Develop a delivery system and implementation plan for accessing, storing, and transmitting instruction to public and private adult learning sites via electronic transmission systems.					X			Detailed media identification, material selection, and development were outlined

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SCHEDULE I

PUBLIC TELEVISION INVOLVEMENT

On July 14, 1986, Bela Ugrin, Video Production Coordinator, of the Department of Technology of the Houston Independent School District, met with Steven Gray, Program Director for Houston Public Television, to discuss the broadcast of literacy material on KUHT, Channel 8, Houston's public television channel.

This schedule contains correspondence in response to that meeting.

KUHT
UNIVERSITY OF HOUSTON [illegible] ASSOCIATION FOR [illegible] TELEVISION
4513 Cullen Boulevard
Houston, Texas 77004
713-749-2304

July 14, 1986

RECEIVED
JUL 16 1986
Department of Technology
Houston Independent School District

Mr. Bela Ugrin
HISD
Video Production Coordinator
Department of Technology
5300 San Felipe
Houston, Texas 77056

Dear Bela:

Thank you for meeting with me this afternoon to discuss your exciting plans for the future at HISD.

As I indicated, I will be more than willing to meet with you and other representatives from HISD to discuss the broadcast of HISD Literacy material(s) on Channel 8.

I have been actively involved with the Project PLUS, combining the efforts of the ABC and PBS networks. As I said, PLUS does not start with the very basic elements of reading and writing. It requires a fourth to seventh grade reading ability as a start! Your program, however, will allow for a far greater basic skill as a base to start from... a great advantage.

Bela, I will look forward to working with you and HISD in the broadcast arena and hope to meet with you soon at your HISD offices.

Best,

Steven

Steven Gray
Program Director
Houston Public Television